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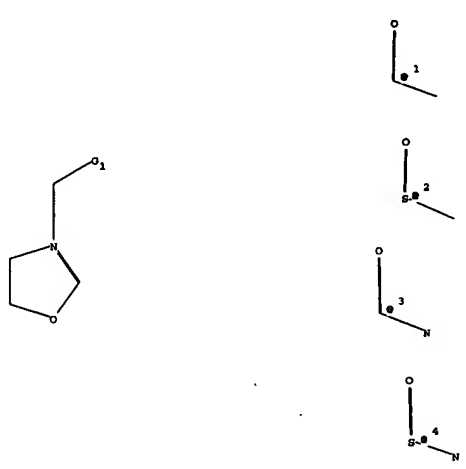
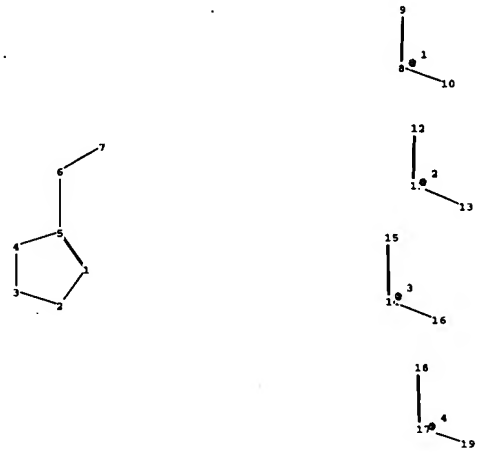
10/037,447





@CN

@CY

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chain bonds :
5-6 6-7 8-9 8-10 11-12 11-13 14-15 14-16 17-18 17-19
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 5-6 6-7 8-9 11-12 11-13 14-15 14-16 17-18 17-19
exact bonds :
8-10

G1:CN,Cy,[*1],[*2],[*3],[*4]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS

FILE 'CAOLD' ENTERED AT 15:54:55 ON 07 JUL 2005

FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REGlstRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> s l2
L3 7 L2

=> d l3 abs cbib hitstr 1-7
'ABS' IS NOT A VALID FORMAT FOR FILE 'CAOLD'

The following are valid formats:

ALL ----- AN, TI, AU, PA, DT, IT, PI (default)
BIB ----- AN, TI, AU, PA, DT, PI
CAN ----- List of CA abstract numbers, no L-number headers
CBIB ---- AN, TI, AU, PA, PI
DALL ---- ALL, delimited (end of each field identified)
IND ----- Indexing data
MAX ----- Same as ALL
SAM ----- TI, IT
SCAN ---- TI, IT (random display, no answer numbers;
SCAN must be entered on the same line as the DISPLAY,
e.g., D SCAN or DISPLAY SCAN)
STD ----- BIB

IALL ---- ALL, indented with text labels
IBIB ---- BIB, indented with text labels
ISTD ---- STD, indented with text labels

HIT ----- Fields containing hit terms
HITIND -- IT
HITRN --- HIT RN
HITSTR -- HIT RN, its CA index name and its structure diagram
FHITSTR - First HIT RN, its CA index name and its structure diagram
OCC ----- Number of occurrence of hit term and fie ld in which it occurs

Index Terms (IT) are CAS Registry Numbers; Accession Numbers (AN) CA References.

Index Terms in CAOLD include only Registry Numbers; no
subject terms are available. The same formats (except
SAMPLE) may be used with the DISPLAY ACC command to display
the record for a specified CAOLD Accession Number.

PAGE ---- Page Image of original Chemical Abstracts issue containing the
abstract of the answer.
PAGE.PREV and PAGE.NEXT will return the image of the page before or after
the current answer.
ENTER DISPLAY FORMAT (ALL):d l3 abs bib hitstr 1-7
'D' IS NOT A VALID FORMAT FOR FILE 'CAOLD'
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'ABS' IS NOT A VALID FORMAT FOR FILE 'CAOLD'
'1-7' IS NOT A VALID FORMAT FOR FILE 'CAOLD'

The following are valid formats:

ALL ----- AN, TI, AU, PA, DT, IT, PI (default)
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CBIB ---- AN, TI, AU, PA, PI
DALL ---- ALL, delimited (end of each field identified)
IND ----- Indexing data
MAX ----- Same as ALL
SAM ----- TI, IT
SCAN ---- TI, IT (random display, no answer numbers;
SCAN must be entered on the same line as the DISPLAY,
e.g., D SCAN or DISPLAY SCAN)
STD ----- BIB

IALL ---- ALL, indented with text labels
IBIB ---- BIB, indented with text labels
ISTD ---- STD, indented with text labels

HIT ----- Fields containing hit terms
HITIND -- IT
HITRN --- HIT RN
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FHITSTR - First HIT RN, its CA index name and its structure diagram
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SAMPLE) may be used with the DISPLAY ACC command to display
the record for a specified CAOLD Accession Number.

PAGE ---- Page Image of original Chemical Abstracts issue containing the
abstract of the answer.
PAGE.PREV and PAGE.NEXT will return the image of the page before or after
the current answer.
ENTER DISPLAY FORMAT (ALL):

L3 ANSWER 1 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA57:328g CAOLD

TI sensitization of photographic Ag halide emulsions
AU Nys, Jean M.; Depoorter, H.
DT Patent
TI silver halide emulsions (photographic), sensitization of
PA Gevaert Photo-Producten N. V.
DT Patent

PATENT NO.	KIND	DATE
DE 1081311		
GB 904332		
US 3282933		1966

IT 639-86-1 59504-73-3 59504-75-5 63132-74-1 88496-92-8 88496-95-1
88891-05-8 89123-01-3 89125-37-1 89166-13-2 89212-29-3 89599-74-6
90414-77-0 **90438-90-7** 93871-49-9 95157-01-0 96063-26-2
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107156-51-4 **107158-10-1** 107306-44-5

L3 ANSWER 2 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA56:13705g CAOLD
TI dyes (polymethine)
PA Gevaert Photo-Producten N. V.
DT Patent
TI polymethine dyes
AU Nys, Jean M.; Depoorter, H.
DT Patent

PATENT NO.	KIND	DATE
BE 569130		

IT 59504-73-3 59504-74-4 59504-75-5 63132-74-1 88496-92-8 88496-95-1
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100272-62-6 100768-90-9 **100930-77-6** 101034-63-3 101037-31-4
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103103-13-5 103535-77-9 104158-28-3 104424-19-3 104442-89-9 105975-65-3
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107156-51-4 **107158-10-1** 107306-44-5

L3 ANSWER 3 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA55:7114i CAOLD
TI dyes (polymethine) containing a 4-(hydroxymethyl)-or 4-(acetoxymethyl)-2-thiazoline or oxazoline nucleus
PA Gevaert Photo-Production N. V.
DT Patent

PATENT NO.	KIND	DATE
US 2954376		1960

IT 53046-77-8 53122-20-6 102882-30-4 103155-48-2 107521-52-8 108017-07-8

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112990-63-3 113062-26-3 114205-78-6 114600-57-6 116106-92-4
117865-19-7 120547-83-3

L3 ANSWER 4 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA54:13921b CAOLD
TI antistain agent for color development
AU Willems, Jozef F.; Nys, J.
DT Patent

PATENT NO.	KIND	DATE
BE 563975		

IT 1605-74-9 2038-15-5 2073-75-8 3237-62-5 15471-17-7 32634-37-0
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130831-66-2 130831-68-4

L3 ANSWER 5 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA54:12852e CAOLD
TI fixing developer
AU Warnke, Anna
PA Leonarwerke Akt.-Ges.
DT Patent

PATENT NO.	KIND	DATE
DE 1024798		

IT **130831-66-2**

L3 ANSWER 6 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA53:15077a CAOLD
TI guanidine compds. - (II) mono- and N,N-dialkylguanidines
AU Bannard, R. A. B.; Casselman, A. A.; Cockburn, W. F.; Brown, G. M.
IT 67-51-6 2498-47-7 4705-39-9 6850-38-0 22906-75-8 22907-04-6
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L3 ANSWER 7 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA51:10494d CAOLD
TI Δ2-dihydroazoles - (I) synthesis and reactions of 2-methyl-4-hydroxymethyl and 2-methyl-4,4-bis(hydroxymethyl)-Δ2-oxazolines, (II) preparation of Δ2-thiazolines
AU Nys, Jean; Libeer, M. J.
IT 115-69-5 4271-18-5 6850-28-8 7534-51-2 19383-02-9 39986-37-3
53046-77-8 53122-20-6 66671-83-8 84820-63-3 86015-22-7 90088-15-6
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120547-83-3

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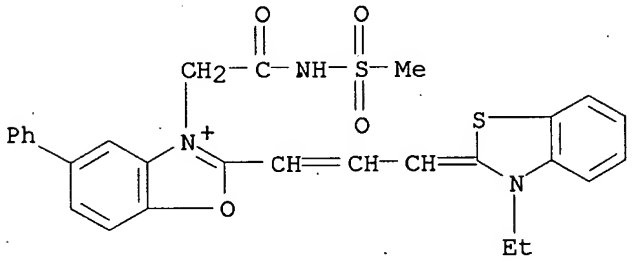
L3 ANSWER 1 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA57:328g CAOLD
TI sensitization of photographic Ag halide emulsions
AU Nys, Jean M.; Depoorter, H.
DT Patent
TI silver halide emulsions (photographic), sensitization of
PA Gevaert Photo-Producten N. V.
DT Patent

PATENT NO.	KIND	DATE
DE 1081311		
GB 904332		
US 3282933		1966

IT **90438-90-7 107158-10-1**
RN 90438-90-7 CAOLD
CN 2-[3-(3-Ethyl-2-benzothiazolinylidene)propenyl]-3-[[(methylsulfonyl)carbamoyl]methyl]-5-phenylbenzoxazolium iodide (7CI) (CA INDEX NAME)



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RN 107158-10-1 CAOLD
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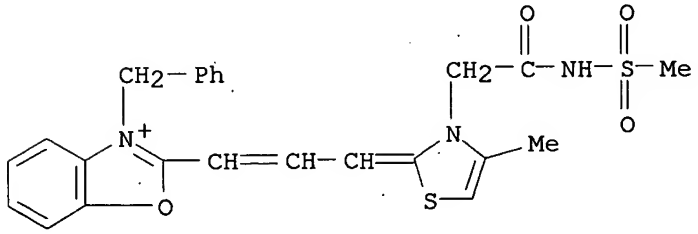

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Delacroix

L3 ANSWER 2 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA56:13705g CAOLD
TI dyes (polymethine)
PA Gevaert Photo-Producten N. V.
DT Patent
TI polymethine dyes
AU Nys, Jean M.; Depoorter, H.
DT Patent

PATENT NO.	KIND	DATE
BE 569130		

IT **90438-90-7 96435-23-3 100930-77-6 106599-46-6 107158-10-1**
RN 90438-90-7 CAOLD
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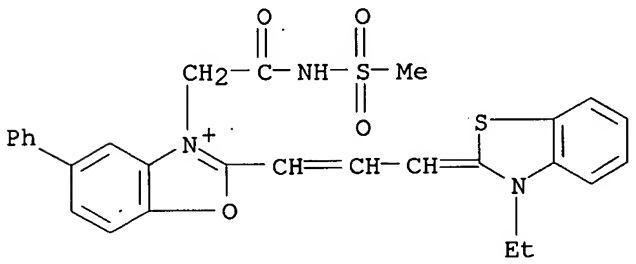

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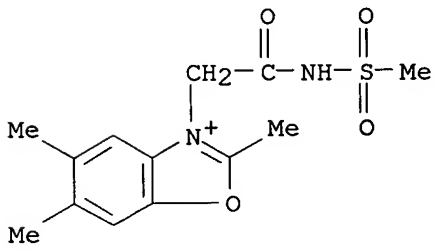

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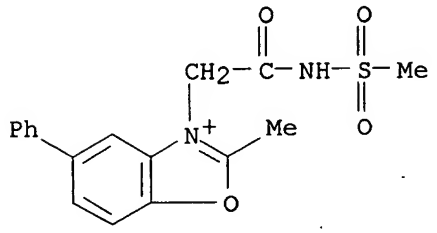

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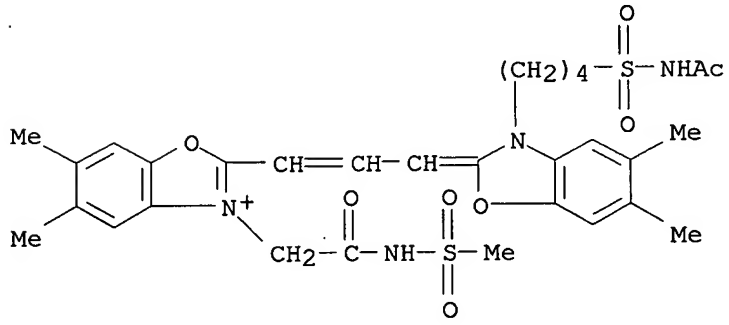
CN 3-[4-(Acetylsulfamoyl)butyl]-2-[3-[5,6-dimethyl-3-[[(methylsulfonyl)carbamoyl]methyl]-2-benzoxazolinylidene]propenyl]-5,6-dimethylbenzoxazolium bromide (7CI) (CA INDEX NAME)



RN 107158-10-1 CAOLD
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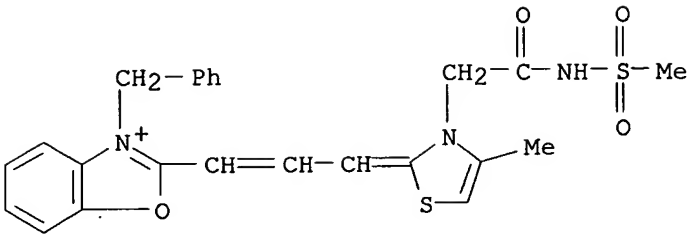

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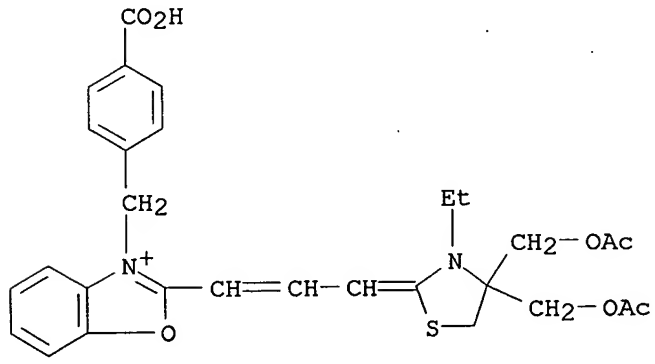
L3 ANSWER 3 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA55:7114i CAOLD
TI dyes (polymethine) containing a 4-(hydroxymethyl)-or 4-(acetoxymethyl)-2-thiazoline or oxazoline nucleus
PA Gevaert Photo-Production N. V.
DT Patent

PATENT NO.	KIND	DATE
US 2954376		1960

IT **117865-19-7**
RN 117865-19-7 CAOLD
CN 3-p-Carboxybenzyl-2-[3-[3-ethyl-4,4-bis(hydroxymethyl-2-thiazolidinylidene]propenyl]benzoxazolium iodide, diacetate (6CI) (CA INDEX NAME)



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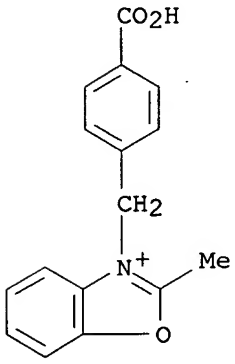
L3 ANSWER 4 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA54:13921b CAOLD
TI antistain agent for color development
AU Willems, Jozef F.; Nys, J.
DT Patent

	PATENT NO.	KIND	DATE
PI	BE 563975		

IT **130831-66-2**
RN 130831-66-2 CAOLD
CN 3-p-Carboxybenzyl-2-methylbenzoxazolium bromide (6CI) (CA INDEX NAME)



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L3 ANSWER 5 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA54:12852e CAOLD
TI fixing developer
AU Warnke, Anna
PA Leonarwerke Akt.-Ges.
DT Patent

	PATENT NO.	KIND	DATE
PI	DE 1024798		

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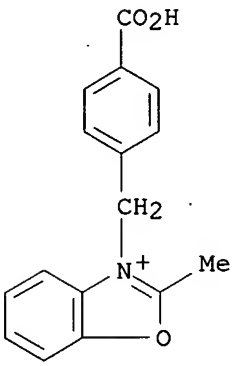

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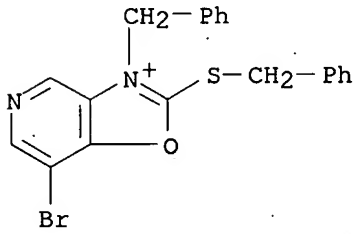
L3 ANSWER 6 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA53:15077a CAOLD
TI guanidine compds. - (II) mono- and N,N-dialkylguanidines
AU Bannard, R. A. B.; Casselman, A. A.; Cockburn, W. F.; Brown, G. M.
IT **111529-97-6**
RN 111529-97-6 CAOLD
CN 3-Benzyl-2-(benzylthio)-7-bromooxazolo[4,5-c]pyridinium chloride (6CI) (CA INDEX NAME)



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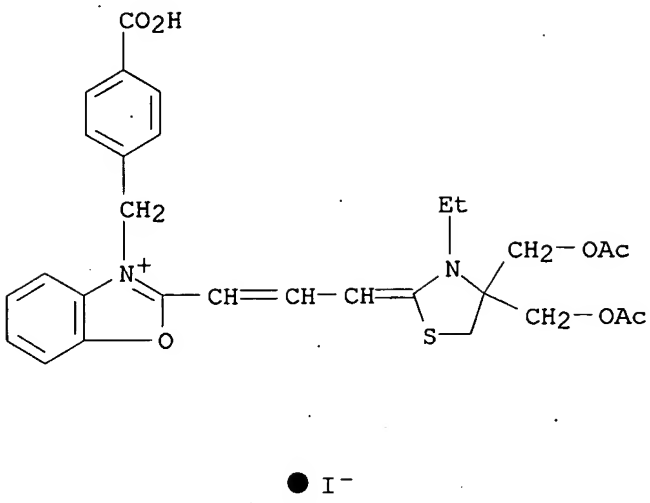
L3 ANSWER 7 OF 7 CAOLD COPYRIGHT 2005 ACS on STN
AN CA51:10494d CAOLD
TI Δ2-dihydroazoles - (I) synthesis and reactions of 2-methyl-4-hydroxymethyl and 2-methyl-4,4-bis(hydroxymethyl)-Δ2-oxazolines, (II) preparation of Δ2-thiazolines
AU Nys, Jean; Libeer, M. J.
IT **117865-19-7**
RN 117865-19-7 CAOLD
CN 3-p-Carboxybenzyl-2-[3-[3-ethyl-4,4-bis(hydroxymethyl-2-thiazolidinylidene]propenyl]benzoxazolium iodide, diacetate (6CI) (CA INDEX NAME)



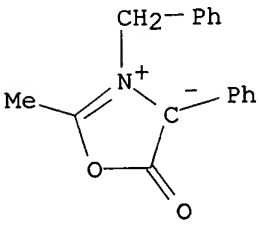
File Hcaplus

10/037,447

=> s l4 and py<=2000
20650021 PY<=2000
L9 70 L4 AND PY<=2000

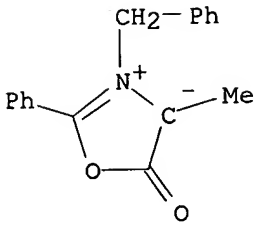
=> d l9 abs cbib hitstr

L9 ANSWER 1 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Unsym. mesoionic munchnones, 2-methyl-4-phenyl- and 4-methyl-2-phenyl-3-benzyl-1,3-oxazolium-5-olate, react with 2-nitroindole-1-carboxylate, 3-nitro-1-(phenylsulfonyl)indole, and 3-nitroindole-1-carboxylate in refluxing THF to afford in good to excellent yields 2-benzyl-1-methyl-3-phenyl-4-carbethoxy-, 2-benzyl-3-methyl-1-phenyl-4-carbethoxy-, 2-benzyl-1-methyl-3-phenyl-4-(phenylsulfonyl)-, and 2-benzyl-3-methyl-1-phenyl-4-(phenylsulfonyl)-2,4-dihydropyrrol[3,4-b]indole, resp. In several cases, the regiochem., which is opposite to that predicted by FMO theory, is very high and leads essentially to a single pyrrol[3,4-b]indole.
2001:60499 Document Number 134:222647 Regioselective 1,3-dipolar cycloaddition reactions of unsymmetrical munchnones (1,3-oxazolium-5-olates) with 2- and 3-nitroindoles. A new synthesis of pyrrolo[3,4-b]indoles. Gribble, Gordon W.; Pelkey, Erin T.; Simon, Wendy M.; Trujillo, Hernando A. (Department of Chemistry, Dartmouth College, Hanover, NH, 03755, USA). Tetrahedron, 56(52), 10133-10140 (English) **2000**. CODEN: TETRAB. ISSN: 0040-4020. OTHER SOURCES: CASREACT 134:222647. Publisher: Elsevier Science Ltd..
IT **329367-56-8 329367-57-9**
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(preparation of pyrrol[3,4-b]indoles by regioselective 1,3-dipolar cycloaddn. with nitroindoles and calculated HOMO/LUMO)
RN 329367-56-8 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-5-oxo-4-phenyl-3-(phenylmethyl)-, ylide (9CI) (CA INDEX NAME)



RN 329367-57-9 HCAPLUS
CN Oxazolium, 4,5-dihydro-4-methyl-5-oxo-2-phenyl-3-(phenylmethyl)-, ylide (9CI) (CA INDEX NAME)

Delacroix



=> d l9 abs cbib hitstr 2-70

L9 ANSWER 2 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Silver halide emulsions contain I [Z1 = atoms required to form a 5- or 6-membered N-containing heterocycle; Z2 = atoms required to form a (un)substituted cycloalkadiene which may form a fused ring with benzene ring; Q1 = group required for the compound to form a methine dye; R1 = (un)substituted alkyl, aryl, heterocylic group; L1, L2 = methine; V1 = substituent; n = 0-2; p1 = 0, 1; M1 = counter ion; m1 = 0-10]. Thus, a silver halide emulsion containing II and III was used to manufacture a phtog. film showing high sensitivity.

2000:873362 Document Number 134:49130 Methine compounds and silver halide emulsions and silver halide photographic materials. Kato, Takashi (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000345060 A2 **20001212**, 43 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-159730 19990607.

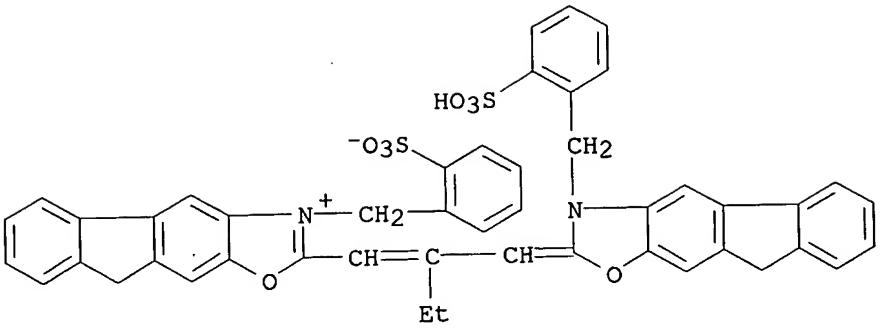
IT **312965-88-1P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(methine compds. for silver halide photog. materials with high sensitivity)

RN 312965-88-1 HCAPLUS

CN 9H-Fluoreno[3,2-d]oxazolium, 2-[2-[[3,9-dihydro-3-[(2-sulfophenyl)methyl]-2H-fluoreno[3,2-d]oxazol-2-ylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

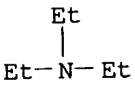
CM 1

CRN 312965-87-0
CMF C47 H36 N2 O8 S2

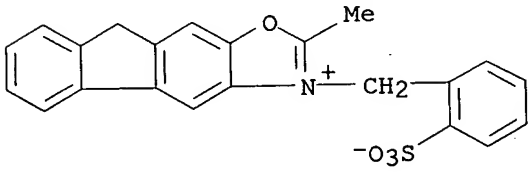


CM 2

CRN 121-44-8
CMF C6 H15 N



IT **312966-11-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(methine compds. for silver halide photog. materials with high sensitivity)
RN 312966-11-3 HCAPLUS
CN 9H-Fluoreno[3,2-d]oxazolium, 2-methyl-3-[(2-sulfophenyl)methyl]-, inner salt (9CI) (CA INDEX NAME)

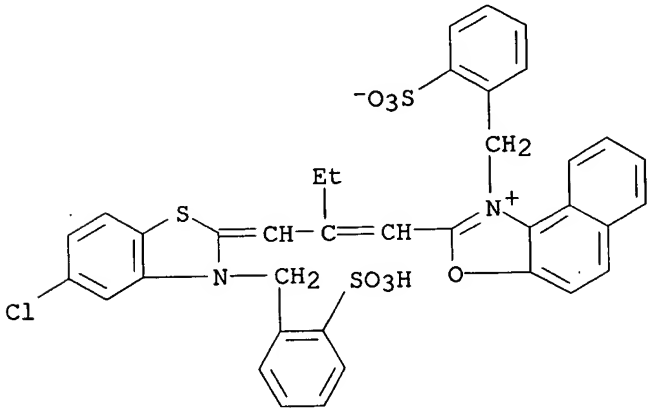


L9 ANSWER 3 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The diffusion-transfer Ag halide photog. material comprises Ag halide tabular grains having more than 1 dye adsorbed layer, wherein the dye is represented by general formula D1(L1D2q)r.M1m1 [D1, D2 = dye chromophore; L1 = divalent connection group, single bond; q, r = 1-100; M1 = counter ion; m1 = number]. The photog. material contains a specified dye-releasing compound
2000:723412 Document Number 133:303480 Diffusion-transfer silver halide photographic material with excellent sensitivity. Yamashita, Katsuhiro (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000284442 A2 **20001013**, 61 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-89801 19990330.
IT **301541-25-3**
RL: DEV (Device component use); USES (Uses)

(sensitizing dye adsorbed on Ag halide grains of diffusion-transfer Ag halide photog. material)

RN 301541-25-3 HCAPLUS

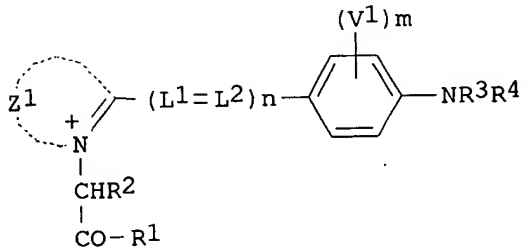
CN Naphth[1,2-d]oxazolium, 2-[2-[[5-chloro-3-[(2-sulfophenyl)methyl]-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-1-[(2-sulfophenyl)methyl]-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

L9 ANSWER 4 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

GI



I

AB The materials contain a photosensitive layer consisting of a support, silver halides, and reducing agents, and a non-photosensitive layer, wherein both layers comprise ≥1 layer containing base precursors and bleachable dyes I [R1 = H, aliphatic, aromatic or heterocyclic group, etc.; R2 = H, aliphatic, aromatic group; L1, L2 = (un)substituted methine, L1 and L2 may link together to form unsatd. cyclic aliphatic or heterocyclic group; R3, R4 = H, aliphatic, aromatic or heterocyclic group; Z1 = group capable of forming 5- or 6-membered N-containing heterocyclic group; V1 = monovalent substituent; m = 0-4; n = 1-4]. The dyes can be decolored via intramol. cyclization by

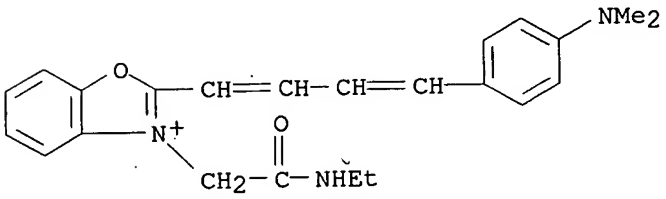
heating in the presence of bases. The dye layer is useful for antihalation layer of photothermog. material.

2000:713068 Document Number 133:303609 Heat development photosensitive materials and photographic materials and method for decoloration of dyes. Sakurada, Masami; Noro, Masaki; Yabuki, Yoshiji (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000281923 A2 **20001010**, 24 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-92886 19990331.

IT **301546-35-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(photothermog. materials containing thermally bleachable styryl dyes)

RN 301546-35-0 HCAPLUS

CN Benzoxazolium, 2-[4-[4-(dimethylamino)phenyl]-1,3-butadienyl]-3-[2-(ethylamino)-2-oxoethyl]-, iodide (9CI) (CA INDEX NAME)



● I^-

L9 ANSWER 5 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

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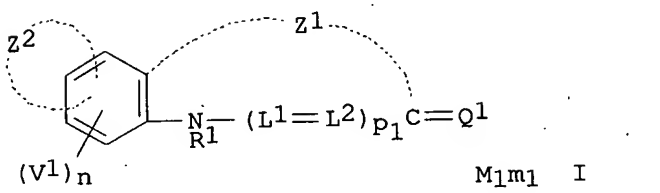
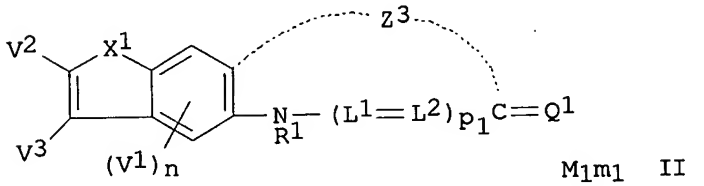
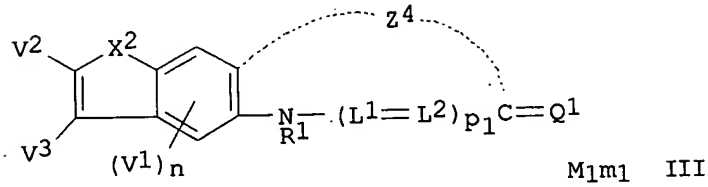


M_1m_1 I



M_1m_1 II



M_1m_1 III

Delacroix

AB The title methine compound has the general formula I [Z1 = atoms required to form a 5- or 6-membered N-containing heterocycle; Z2 = atoms required to condense with the benzene ring to form a 5- or 6-membered heterocycle, the heterocycle may be condensed at any position on the benzene ring and may be further substituted and condensed with other ring; Q1 = group required for the compound to form a methine dye; R1 = alkyl having aryl or heterocyclic groups as substituents, aryl, heterocyclic group; L1, L2 = methine; p1 = 0 or 1; M1 = counter ion; m1 = 0-10; V1 = substituent; n = 0-2]. The Ag halide emulsion contains ≥1 compound I, II or III [X1 = O, S; X2 = NR4 (R4 = H, substituent); Z3, Z4 = atoms required to form a 5- or 6- membered N-containing heterocycle, Z4 contains no S atom; V2, V3 = H, substituent, V2 and V3 may form a condensed ring; R1, L1, L2, p1, Q1, M1, m1, V1, and n are each the same as defined above for formula I] or 2 types of the compds. of the formula I. The photog. material possesses ≥1 layer comprising the emulsion. The photog. material shows high sensitivity.

2000:705327 Document Number 133:288782 Methine compound, silver halide emulsion, and silver halide photographic material. Kobayashi, Masaru; Kato, Takashi (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000275776 A2 **20001006**, 49 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-80141 19990324.

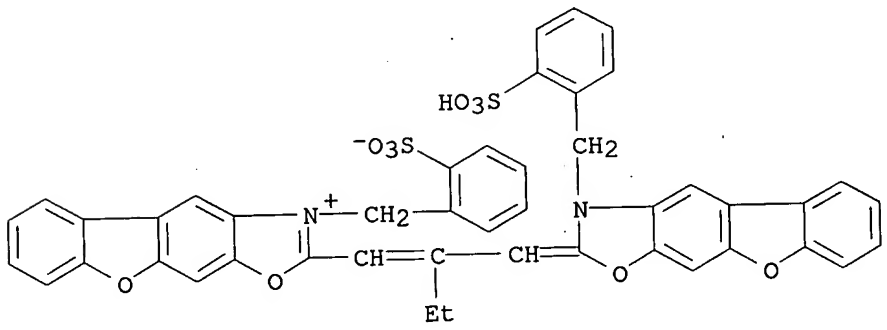
IT **299939-30-3**
RL: DEV (Device component use); USES (Uses)
(methine dye photog. sensitizer)

RN 299939-30-3 HCAPLUS

CN Benzofuro[3,2-f]benzoxazolium, 1-[(2-sulfophenyl)methyl]-2-[2-[[1-[(2-sulfophenyl)methyl]benzofuro[3,2-f]benzoxazol-2(1H)-ylidene]methyl]-1-butenyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

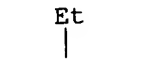
CM 1

CRN 299939-29-0
CMF C45 H32 N2 O10 S2

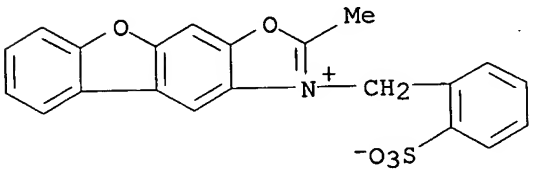


CM 2

CRN 121-44-8
CMF C6 H15 N



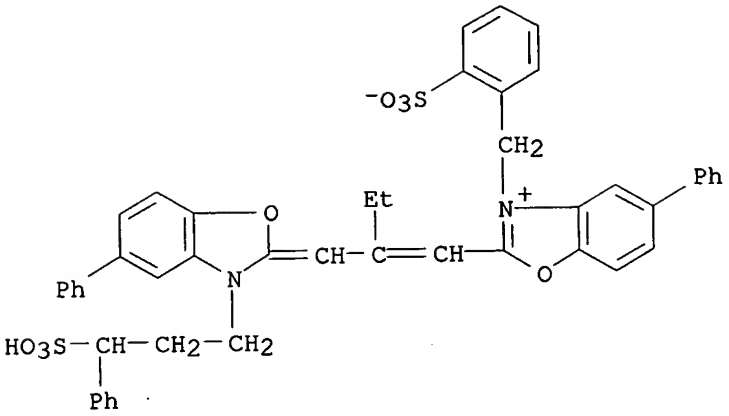
IT **299939-35-8P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of methine dye photog. sensitizer)
RN 299939-35-8 HCAPLUS
CN Benzofuro[3,2-f]benzoxazolium, 2-methyl-1-[(2-sulfophenyl)methyl]-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 6 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The title photog. material contains Ag halide grains to which ≥1 layer of a dye chromophore is adsorbed and a solid dispersion of a dye. The material shows high sensitivity and low residual color stain.
2000:705323 Document Number 133:288778 Silver halide photographic material containing sensitizing dye-adsorbed silver halide grains. Hioki, Takanori (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000275772 A2 **20001006**, 50 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-76150 19990319.
IT **297753-91-4 297753-93-6 300564-64-1**
RL: DEV (Device component use); USES (Uses)
(photog. emulsion containing sensitizing dye-adsorbed silver halide grains)
RN 297753-91-4 HCAPLUS
CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-(3-phenyl-3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

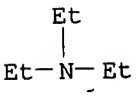
CM 1

CRN 297753-90-3
CMF C47 H40 N2 O8 S2



CM 2

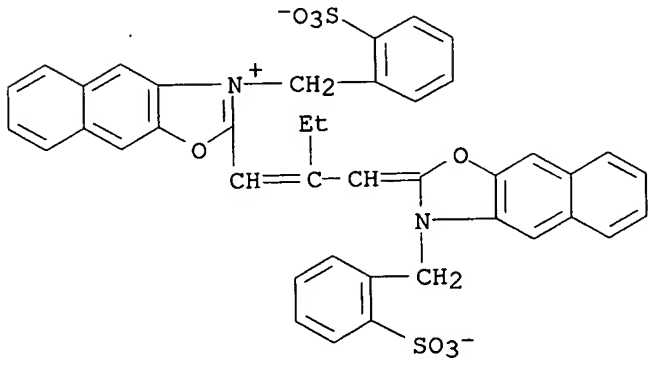
CRN 121-44-8
CMF C6 H15 N



RN 297753-93-6 HCAPLUS
CN Naphth[2,3-d]oxazolium, 3-[(2-sulfophenyl)methyl]-2-[2-[[3-[(2-sulfophenyl)methyl]naphth[2,3-d]oxazol-2(3H)-ylidene]methyl]-1-butenyl]-, inner salt, ion(1-), 1-ethylpyridinium (9CI) (CA INDEX NAME)

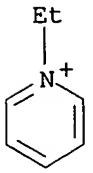
CM 1

CRN 297753-92-5
CMF C41 H31 N2 O8 S2

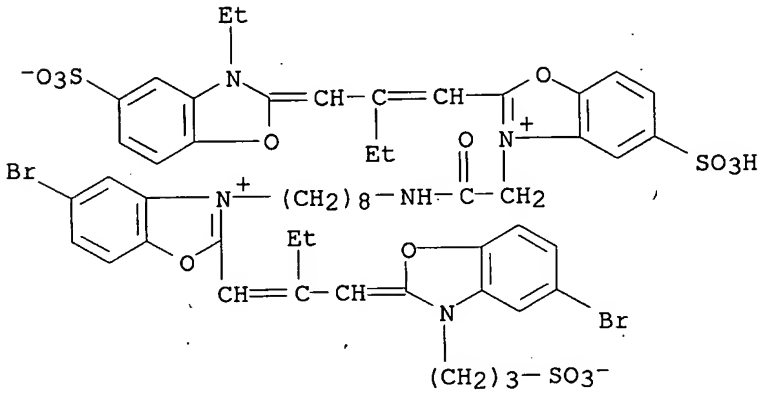


CM 2

CRN 15302-96-2
CMF C7 H10 N



RN 300564-64-1 HCAPLUS
CN Benzoxazolium, 5-bromo-2-[2-[[5-bromo-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[8-[[[2-[2-[(3-ethyl-5-sulfo-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-5-sulfobenzoxazolium-3-yl]acetyl]amino]octyl]-, bis(inner salt), monosodium salt (9CI) (CA INDEX NAME)

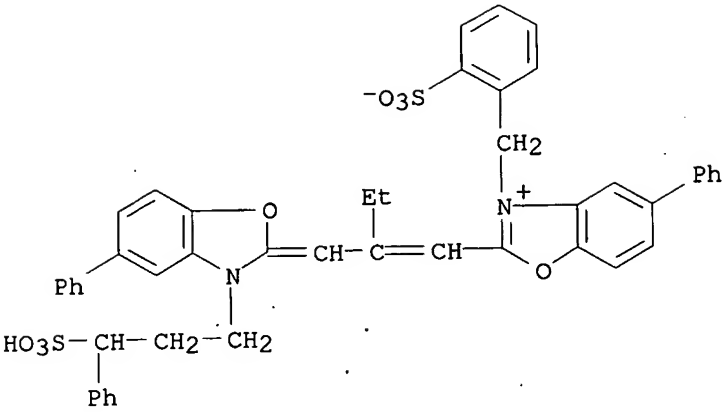


● Na

L9 ANSWER 7 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The title photog. material contains Ag halide rains on which ≥1 layer of a dye chromophore is adsorbed and which are Se-sensitized. The material shows high sensitivity and low residual color stain.
2000:686572 Document Number 133:274160 Silver halide photographic material.. Hio, Takanori (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000267216 A2 **20000929**, 51 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-66900 19990312.
IT **297753-91-4 297753-93-6**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye-adsorbed silver halide grain sensitized with selenium)
RN 297753-91-4 HCAPLUS
CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-(3-phenyl-3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

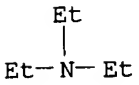
CM 1

CRN 297753-90-3
CMF C47 H40 N2 O8 S2



CM 2

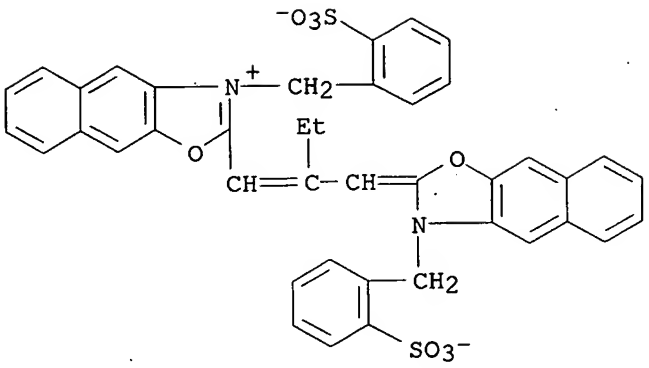
CRN 121-44-8
CMF C6 H15 N



RN 297753-93-6 HCAPLUS
CN Naphth[2,3-d]oxazolium, 3-[(2-sulfophenyl)methyl]-2-[2-[[3-[(2-sulfophenyl)methyl]naphth[2,3-d]oxazol-2(3H)-ylidene]methyl]-1-butenyl]-, inner salt, ion(1-), 1-ethylpyridinium (9CI) (CA INDEX NAME)

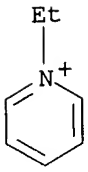
CM 1

CRN 297753-92-5
CMF C41 H31 N2 O8 S2



CM 2

CRN 15302-96-2
CMF C7 H10 N



L9 ANSWER 8 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
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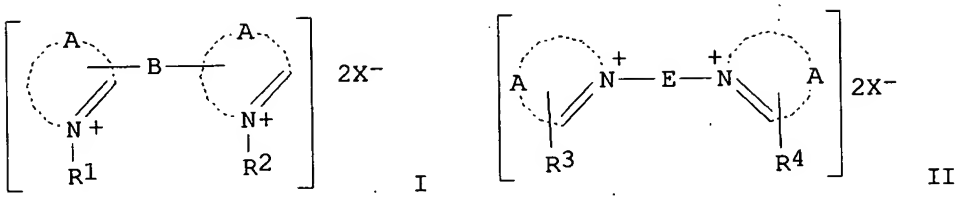


I II

AB The title photog. emulsion contains Ag(Br,I) or Ag(Br,Cl,I) tabular Ag halide grains of which the parallel principal planes are (111) planes and which have an aspect ratio of ≥2 and ≥10 dislocation lines per 1 grain at ≥50% of the total projective area of the Ag halide grains and ≥1 compound I or II [A = atoms required to form a N-containing heterocycle; B, E = alkylene, arylene, O, S, SO2, CO2, NR5, group composed of these groups (R5 = H, alkyl, aryl and each of the O, S, SO2, CO2 and NR5 links at the position adjacent to the alkylene or arylene, B is N atom forming a heterocycle along with A and dose not link to the atom bonding to C atom by a double bond); R1, R2 = alkyl, aralkyl; R3, R4 = substituent; X = anion, when these compds. form inner sats, X is not present]. The photog. material possesses ≥1 Ag halide emulsion

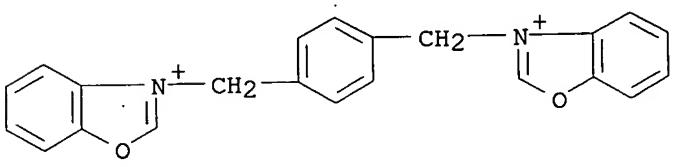
layer containing the emulsion on a support. The emulsion shows high sensitivity and improved sensitivity/fog ratio.

2000:638218 Document Number 133:245049 Silver halide photographic emulsion and photographic material containing same. Morimoto, Kiyoshi (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000250157 A2 **20000914**, 64 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-49670 19990226.

IT **292148-31-3**
RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(photog. emulsion containing tabular silver halide grains with dislocation lines and pyridinium compound)

RN 292148-31-3 HCAPLUS

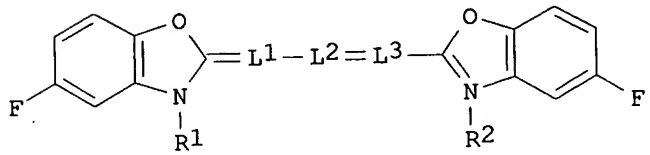
CN Benzoxazolium, 3,3'-[1,4-phenylenebis(methylene)]bis-, dichloride (9CI) (CA INDEX NAME)



●2 Cl^-

L9 ANSWER 9 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

GI



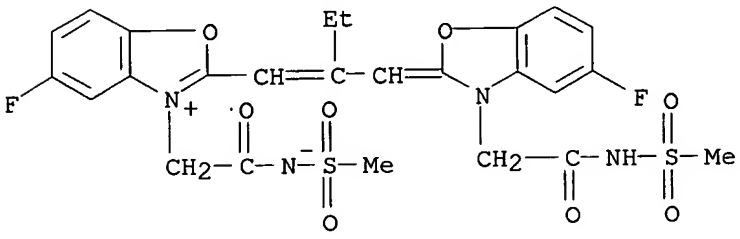
M^1_{m1} I

AB The title photog. material possesses a hydrophilic colloid layer containing ≥1 compound I (R1, R2 = alkyl, aralkyl, unsatd. hydrocarbon; L1-3 = methine; M1 = counter ion; m1 ≥ 0). and ≥1 dye A:CHQ (A = acidic nucleus; Q = aryl or aromatic heterocycle). The material shows low residual sensitizing dye stain and high sensitivity.

2000:401373 Document Number 133:51111 Silver halide color photographic material. Morimoto, Kiyoshi; Hioki, Takanori; Yabuki, Yoshiharu (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000162729 A2 **20000616**, 53 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-124771 19990430. PRIORITY: JP 1998-285898 19980924.

IT **275370-89-3**
RL: DEV (Device component use); USES (Uses)
(photog. paper containing cyanine dye sensitizer and dye)

RN 275370-89-3 HCAPLUS
CN Benzoxazolium, 5-fluoro-2-[2-[[5-fluoro-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 10 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
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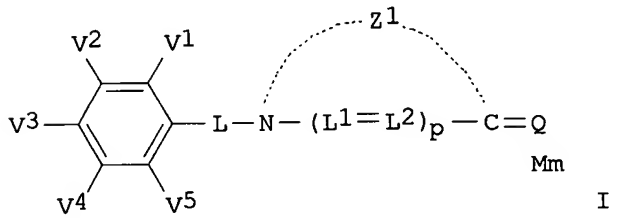
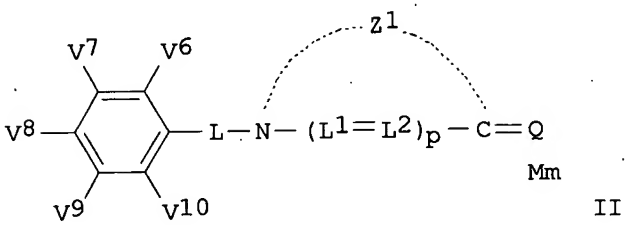


I



II

AB The Ag halide emulsion contains 2 kinds of methine compds. of I (V1-5 = H, substituent; L = divalent connection group; Z1 = atoms for forming 5- to 6-membered N-containing ring; L1, L2 = methine; p = 0, 1; Mm = counter ion; Q = methine, polymethine) and II (V6-10 = H, substituent; L = divalent connection group; Z1 = atoms for forming 5- to 6-membered N-containing ring; L1, L2 = methine; p = 0, 1; Mm = counter ion; Q = methine, polymethine).

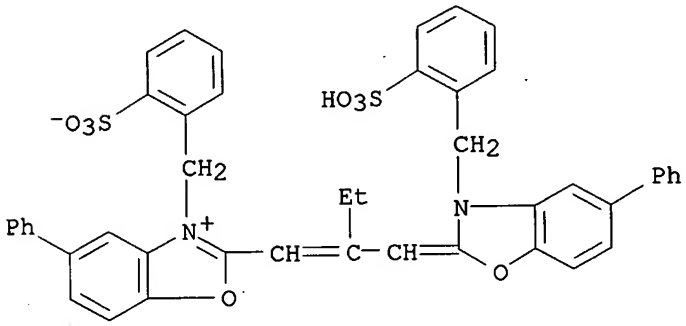
2000:181200 Document Number 132:214735 High sensitive silver halide emulsion and silver halide photographic material using the same. Kobayashi, Suguru (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000081680 A2 **20000321**, 76 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-249939 19980903.

IT **187330-68-3**
RL: DEV (Device component use); USES (Uses)
(methine compds. for high sensitive Ag halide photog. emulsion)

RN 187330-68-3 HCAPLUS
CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

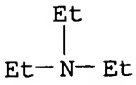
CM 1

CRN 187330-67-2
CMF C45 H36 N2 O8 S2



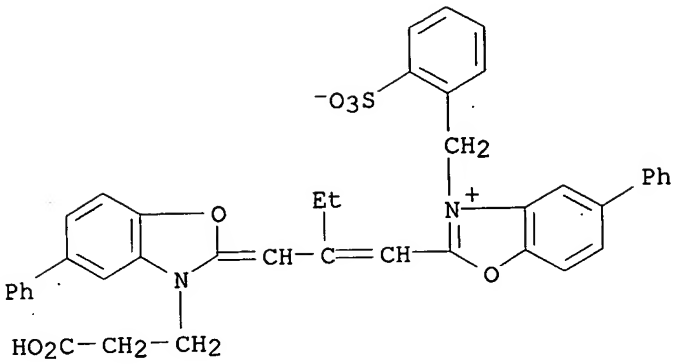
CM 2

CRN 121-44-8
CMF C6 H15 N



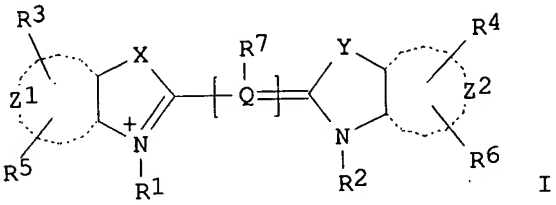
L9 ANSWER 11 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The Ag halide photog. emulsion contains spectral sensitizing dyes represented by (dye1)-L-X and (dye2)-L-Y [dye1 = spectral sensitizing dye; L = single bond, divalent connection group; X = group capable of reacting with Y; dye2 = spectral sensitizing dye; Y = group capable of reacting with X], wherein the spectral sensitizing dyes form a covalent bond between X and Y. The photog. emulsion shows excellent sensitivity and storage stability.
2000:180044 Document Number 132:229440 Silver halide photographic emulsion. Kobayashi, Masaru (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 2000081678 A2 **20000321**, 31 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-249971 19980903.
IT **261180-19-2**
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(Ag halide photog. emulsion with photog. spectral sensitizers capable of forming covalent bond between them)
RN 261180-19-2 HCAPLUS
CN Benzoxazolium, 2-[2-[[3-(2-carboxyethyl)-5-phenyl-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-5-phenyl-3-[(2-sulfophenyl)methyl]-,

inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 12 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

GI



I

AB A non-fluorescent cyanine dye (I) may be used as an acceptor in fluorescence energy transfer assays involving the detection of binding and/or cleavage events in reactions involving biol. mols., and assay methods utilizing such dyes are disclosed. In I, Q contains at least one double bond and forms a conjugated system with the rings containing X and Y; groups R3, R4, R5, and R6 are attached to the rings containing X and Y, or optionally, are attached to atoms of the Z1 and Z2 ring structures; Z1 and Z2 each represent a bond or the atoms necessary to complete one or two fused aromatic rings each ring having five or six atoms, selected from carbon atoms and, optionally, no more than two oxygen, nitrogen and sulfur atoms; at least one of groups R1, R2, R3, R4, R5, R6, and R7 is a target bonding group; any remaining groups R3, R4, R5, R6 and R7 groups are independently selected from the group consisting of hydrogen, C1-C4-alkyl, OR9, CO2R9, nitro, amino, acylamino, quaternary ammonium, phosphate, sulfonate, and sulfate, where R9 is selected from H and C1-C4-alkyl; any remaining R1 and R2 are selected from C1-C10-alkyl which may be unsubstituted or substituted with Ph, the Ph being optionally substituted by up to two substituents selected from carboxyl, sulfonate and nitro groups; characterized in that at least one of the groups R1, R2, R3, R4, R5, R6, and R7 comprises a substituent which reduces the fluorescence emission of said dye such that it is essentially non-fluorescent. In an example, blue 2-[5-[1-(5-carboxypentyl)-3,3-dimethyl-5-sulfo-1,3-dihydro-2H-indol-2-ylidene]-1,3-pentadienyl]-1-(3,5-dinitrobenzyl)-3,3-dimethyl-5-sulfo-3H-

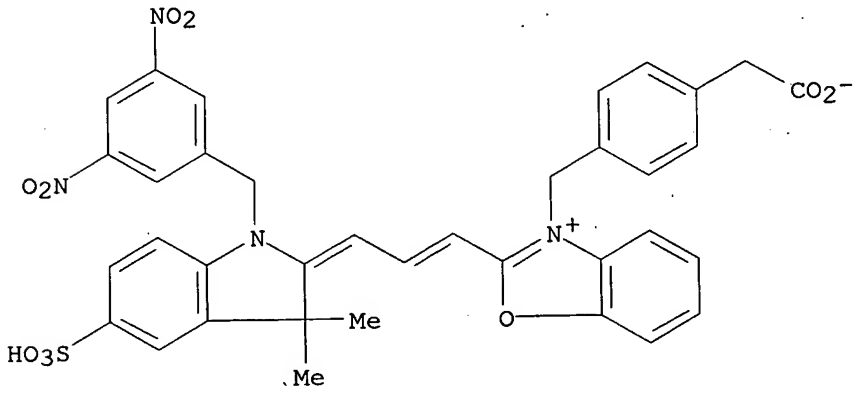
indolium inner salt (λmax 651 nm) was prepared from 1-(3,5-dinitrobenzyl)-2,3,3-trimethyl-5-sulfo-3H-indolium bromide, 1-(5-carboxypentyl)-2,3,3-trimethyl-5-sulfo-3H-indolium bromide, and malonaldehyde bis(phenylimine) monohydrochloride and used as an acceptor label in an oligonucleotide binding assay.

1999:795903 Document Number 132:36958 Energy transfer assay method and non-fluorescent cyanine dye therefor. Hamilton, Alan L.; Birch, Martyn N.; Hatcher, Malcolm J.; Bosworth, Nigel; Scott, Brian (Amersham Pharmacia Biotech UK Limited, UK). PCT Int. Appl. WO 9964519 A1 **19991216**, 59 pp. DESIGNATED STATES: W: AU, CA, JP, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1999-GB1746 19990602. PRIORITY: GB 1998-12596 19980611.

IT **252358-55-7P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; production of nonfluorescent cyanine acceptor dyes for fluorescence energy transfer assay of biomols.)

RN 252358-55-7 HCAPLUS

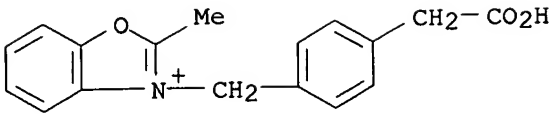
CN Benzoxazolium, 3-[[4-(carboxymethyl)phenyl]methyl]-2-[3-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)



IT **252358-68-2P 252358-70-6P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; production of nonfluorescent cyanine acceptor dyes for fluorescence energy transfer assay of biomols.)

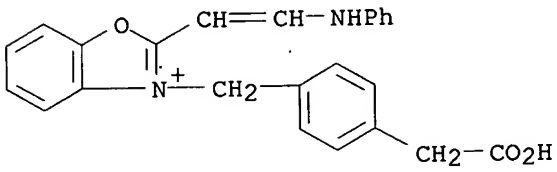
RN 252358-68-2 HCAPLUS

CN Benzoxazolium, 3-[[4-(carboxymethyl)phenyl]methyl]-2-methyl-, bromide (9CI) (CA INDEX NAME)



● Br^-

RN 252358-70-6 HCAPLUS
CN Benzoxazolium, 3-[[4-(carboxymethyl)phenyl]methyl]-2-[2-(phenylamino)ethenyl]-, bromide (9CI) (CA INDEX NAME)

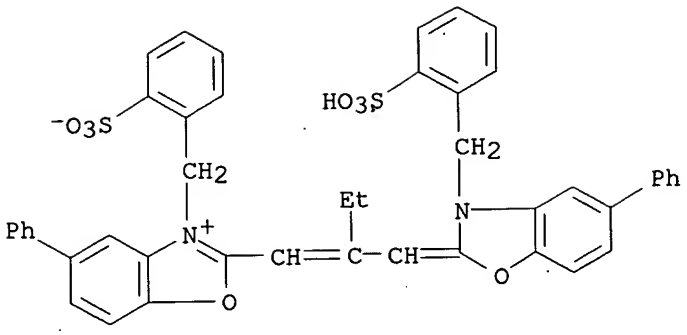


● Br^-

L9 ANSWER 13 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The title photog. emulsion contains a cationic dye with an anionic polymer or an anionic dye with a cationic polymer. The invention photog. material show high-sensitivity.
1999:752344 Document Number 132:7535 The silver halide photographic emulsion and photographic material using same. Kato, Takashi; Yamashita, Katsuhiro (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 11327075 A2 **19991126** Heisei, 35 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-129091 19980512.
IT **207231-82-1**
RL: TEM (Technical or engineered material use); USES (Uses)
(contained in photog. emulsion containing cationic dye with anionic polymer or vice versa)
RN 207231-82-1 HCAPLUS
CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

CM 1

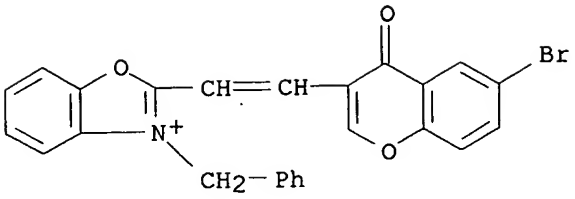
CRN 187330-67-2
CMF C45 H36 N2 O8 S2



CM 2

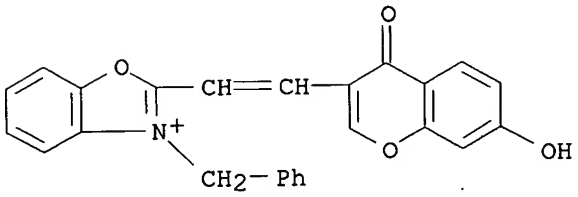
CRN 110-86-1
CMF C5 H5 N

L9 ANSWER 14 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB A conference report (poster). The synthesis and photosynthetic activity of 2-[2-(4-oxo-4H-1-benzopyran-3-yl)ethenyl]-3-(phenylmethyl)benzothiazolium halides was reported.
1999:505996 Document Number 132:107900 Study of microwave irradiation synthesis, solvatochromism and photosynthetic activity of the 2-(4H-4-oxo-benzopyran-3-yl)benzothiazolium salts. Lacova, M.; Loos, D.; Klestinec, M.; Gaplovsky, A.; Kralova, K.; Sersen, F.; Chovancova, J. (Department of Organic chemistry, Faculty of Science, Communes University, Bratislava, SK-842 15, Slovakia). ECHET98: Electronic Conference on Heterocyclic Chemistry, June 29-July 24, 1998, 365-375. Editor(s): Rzepa, Henry S.; Kappe, C. Oliver; Leach, Christopher. Imperial College Press: London, UK. (English) **1998**. CODEN: 67TSA2.
IT **255731-39-6 255731-40-9**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(preparation, solvatochromism and photosynthetic activity of [(oxobenzopyranyl)ethenyl]benzothiazolium halides)
RN 255731-39-6 HCAPLUS
CN Benzoxazolium, 2-[2-(6-bromo-4-oxo-4H-1-benzopyran-3-yl)ethenyl]-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



● Br^-

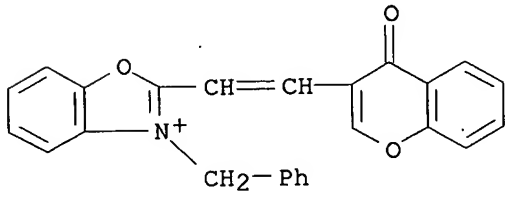
RN 255731-40-9 HCAPLUS
CN Benzoxazolium, 2-[2-(7-hydroxy-4-oxo-4H-1-benzopyran-3-yl)ethenyl]-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



● Br^-

IT **255731-36-3P 255731-37-4P 255731-38-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation, solvatochromism and photosynthetic activity of [(oxobenzopyranyl)ethenyl]benzothiazolium halides)

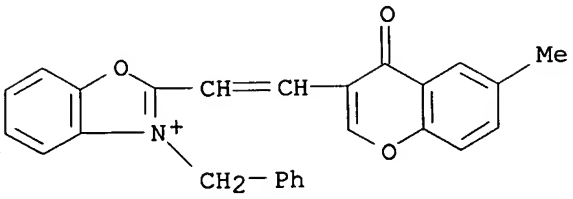
RN 255731-36-3 HCAPLUS
CN Benzoxazolium, 2-[2-(4-oxo-4H-1-benzopyran-3-yl)ethenyl]-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



● Br^-

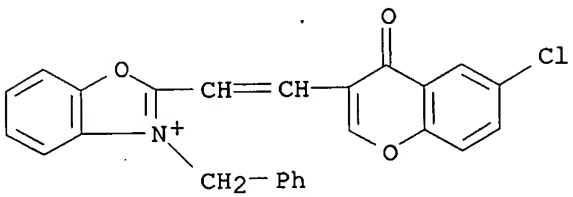
RN 255731-37-4 HCAPLUS
CN Benzoxazolium, 2-[2-(6-methyl-4-oxo-4H-1-benzopyran-3-yl)ethenyl]-3-

(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



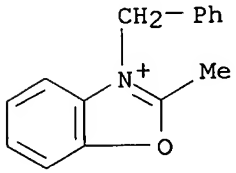
● Br^-

RN 255731-38-5 HCAPLUS
CN Benzoxazolium, 2-[2-(6-chloro-4-oxo-4H-1-benzopyran-3-yl)ethenyl]-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



● Br^-

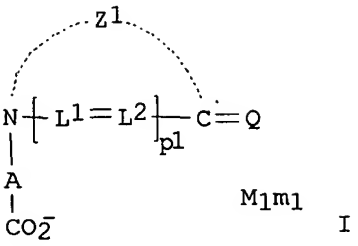
IT **63815-92-9**, Benzoxazolium, 2-methyl-3-(phenylmethyl)-, bromide
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation, solvatochromism and photosynthetic activity of [(oxobenzopyranyl)ethenyl]benzothiazolium halides)
RN 63815-92-9 HCAPLUS
CN Benzoxazolium, 2-methyl-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



● Br^-

L9 ANSWER 15 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

GI



I

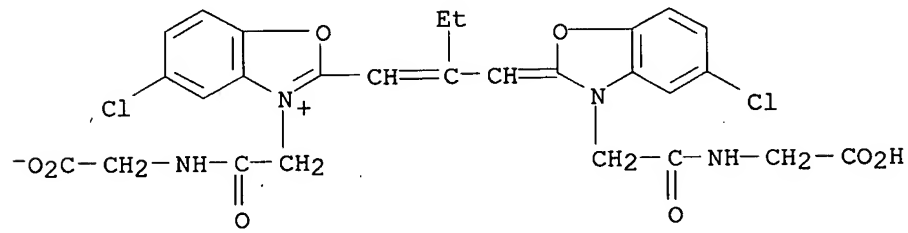
AB The silver halide photog. material containing nitrogen heterocyclic carboxy alkyl compound I(A = divalent containing group containing at least other than carbon; Z1 = 5- or 6-member nitrogen heterocyclic residue; L1-2 = methyne; p1 = 0-1; M1 = charge balancing ion; m1 = 1-10; Q = residue of methyne dye forming group). The silver halide photog. material shows the excellent sensitivity, the prevented fogging, the long shelf-life, and the decreased residual color.

1999:463429 Document Number 131:151628 Silver halide photographic material containing heterocyclic carboxy alkyl compound having nitrogen. Hioki, Takanori (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 11199789 A2 **19990727** Heisei, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-5722 19980114.

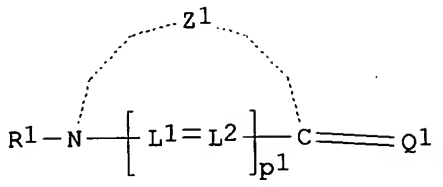
IT **235082-81-2P**
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(nitrogen containing heterocyclic carboxy alkyl compound for silver halide photog. material)

RN 235082-81-2 HCAPLUS

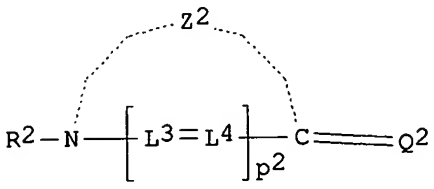
CN Benzoxazolium, 3-[2-[(carboxymethyl)amino]-2-oxoethyl]-2-[2-[[3-[2-[(carboxymethyl)amino]-2-oxoethyl]-5-chloro-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-5-chloro-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 16 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



M_{m1} I



M_{m2} II

AB The converters are composed of semiconductor particles sensitized by organic dye adsorbed on their surface, with the chromophoric groups perpendicular to the particle surface, and the metal cluster complex forming a chromophoric group. The semiconductor particles may be sensitized by ≥1 cationic and ≥1 anionic dyes. The dyes are preferably methine dye I (Z1 = atom groups forming N containing heterocyclic rings, R1 = alkyl of aromatic group, Q1 = methine or polymethine group, L1 and L2 = methine group, p1 = 0 or 1, R1 and Q1 also contain substituents making the dye cationic, M1 = anion balancing the charge of the mol., and m1 = 1-10 integer necessary to elec. neutralize the mol.) and II (Z2 = atom groups forming N containing heterocyclic rings, R2 = alkyl of aromatic group, Q2 = methine or polymethine group, L3 and L4 = methine group, p2 = 0 or 1, R2 and Q3 also contain substituents making the dye anionic, M2 = cation balancing the charge of the mol., and m2 = 1-10 integer necessary to elec. neutralize the mol.). The dye may also be ≥1 compound of formula: D(L-A)n, in which D = a sensitizing dye adsorbed on the semiconductor particles, L = a bivalent connection group or a single bond, A = luminescent dye, and n = an integer of ≥1. The converters are preferably photoelectrochem. cells.

1999:392858 Document Number 131:33844 Organic dye sensitized photoelectric converters. Kobayashi, Suguru; Hio, Takanori; Yamashita, Katsuhiro; Watanabe, Tetsuya; Kato, Takashi (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 11167937 A2 **19990622** Heisei, 114 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-241839 19980827. PRIORITY: JP 1997-267455 19970930; JP 1997-281187 19970930.

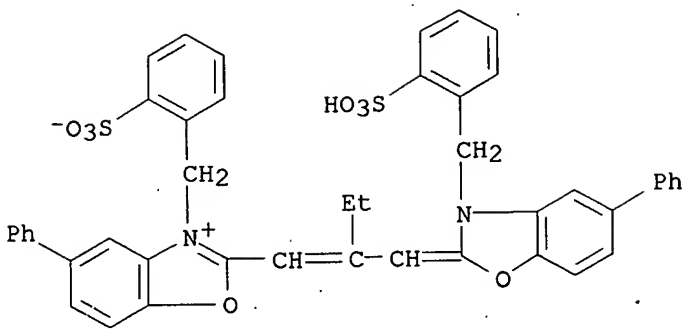
IT **207231-82-1**
RL: MOA (Modifier or additive use); USES (Uses)
(methine dye sensitized titania electrodes for photoelectrochem. cells)

RN 207231-82-1 HCAPLUS

CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 187330-67-2
CMF C45 H36 N2 O8 S2



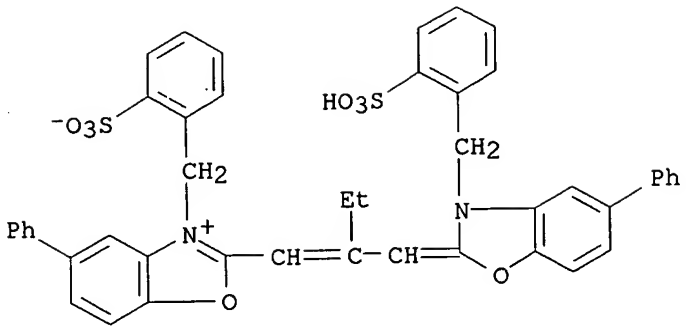
CM 2

CRN 110-86-1
CMF C5 H5 N

L9 ANSWER 17 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The material has ≥1 Ag halide emulsion layer containing spectrally sensitized platy Ag halide particles with average aspect ratio 8-100 and optical absorption intensity by sensitizing dye ≥100 per unit surface area. The Ag halide particles may be sensitized at spectral absorption maximum wavelength ≤500 nm and the optical absorption intensity may be 60-100 (≠ 100). The emulsion may be manufactured by forming a twin nucleus-containing Ag halide nucleus with Cl content ≥10 mol% (for Ag) in a solution, aging the nucleus, and growing the resulting platy nucleus. The material shows high sensitivity.
1999:322509 Document Number 130:359245 Spectrally sensitized silver halide photographic material. Suzumoto, Takeshi; Urabe, Shigeharu; Yamashita, Katsuhiro (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 11133531 A2 **19990521** Heisei, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-292882 19971024.
IT **207231-82-1**
RL: DEV (Device component use); USES (Uses)
(sensitizing dye; spectrally sensitized silver halide photog. material with high sensitivity)
RN 207231-82-1 HCAPLUS
CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

CM 1

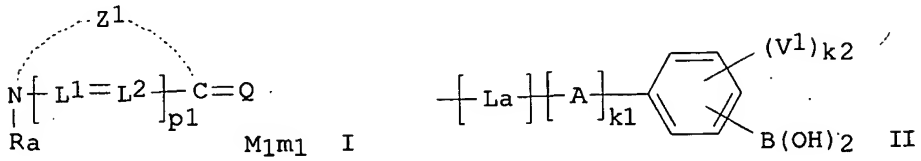
CRN 187330-67-2
CMF C45 H36 N2 O8 S2



CM 2

CRN 110-86-1
CMF C5 H5 N

L9 ANSWER 18 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



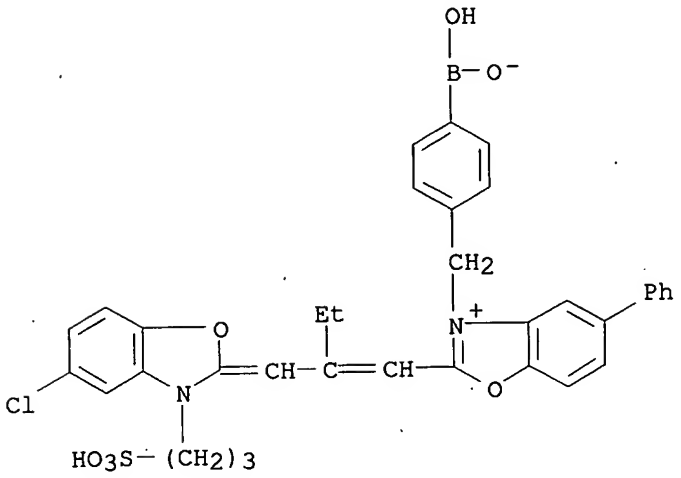
AB The material contains ≥1 methine I (Z1 = atoms required to form 5- or 6-membered N-containing heterocyclic ring; L1, L2 = methine; p1 = 0, 1; M1 = charge-neutralizing counter ion; m1 = 0-10; Q = groups required to form a methine dye); Ra = II (La = methylene; A = divalent linking group; V1 = monovalent substituent; k1 = 0, 1; k2 = 0-4). The material shows high sensitivity and improved storage stability.

1999:111842 Document Number 130:189356 Silver halide photographic material containing methine as sensitizer. Hioki, Takanori (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 11038545 A2 **19990212** Heisei, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-192893 19970717.

IT **220599-72-4**
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(silver halide photog. emulsion containing methine with high sensitivity and improved storage stability)

RN 220599-72-4 HCAPLUS
CN Benzoxazolium, 3-[(4-boronophenyl)methyl]-2-[2-[[5-chloro-3-(3-

sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-5-phenyl-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 19 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The title emulsion contains anionic and cationic dyes 1 of which has ≥2 charge valences and the photog. material comprises ≥1 Ag halide emulsion layer containing the emulsion. The emulsion may contain these dyes at ≥160 %of saturation coating amount in total. The emulsion shows high light absorbing rate per unit area of the surface of the Ag halide grains and the material exhibits high sensitivity.

1998:407854 Document Number 129:142526 Silver halide photographic emulsion and photographic material containing it. Yamashita, Katsuhiro; Kobayashi, Masaru (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 10171058 A2 **19980626** Heisei, 31 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-333785 19961213.

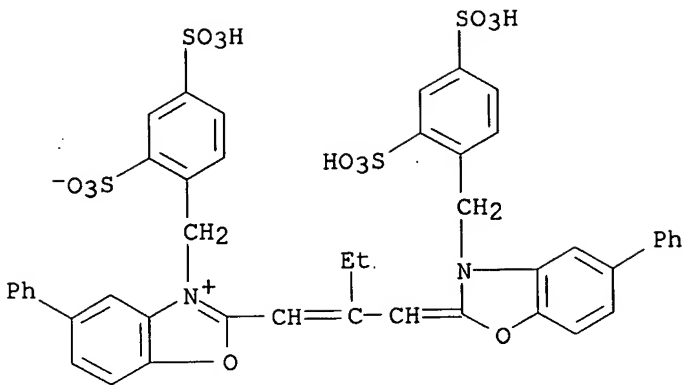
IT **210483-06-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. emulsion containing cationic and anionic dyes)

RN 210483-06-0 HCAPLUS

CN Benzoxazolium, 3-[(2,4-disulfophenyl)methyl]-2-[2-[[3-[(2,4-disulfophenyl)methyl]-5-phenyl-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-5-phenyl-, inner salt, compd. with pyridine (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 210483-05-9
CMF C45 H36 N2 O14 S4



CM 2

CRN 110-86-1
CMF C5 H5 N

L9 ANSWER 20 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title materials contain ≥1 compound I, II or III (La1-a3 = methylene; Ar = aromatic or heterocyclic group; V1-6 = monovalent substituent; r = 1-4; q1 = 0-3; q2-6 = 0-4; k1-3 = 1-5; Y = O, S, Se, N, C, Te; M1-3 = counter ion; m1-3 ≥ 0; Q1-3 = group required to form a methine dye). The materials show high sensitivity, low fog, and good storage stability.

1998:298183 Document Number 129:21412 Silver halide photographic materials using novel sensitizing dye. Hioki, Takanori (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 10123650 A2 **19980515** Heisei, 35 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-282596 19961024.

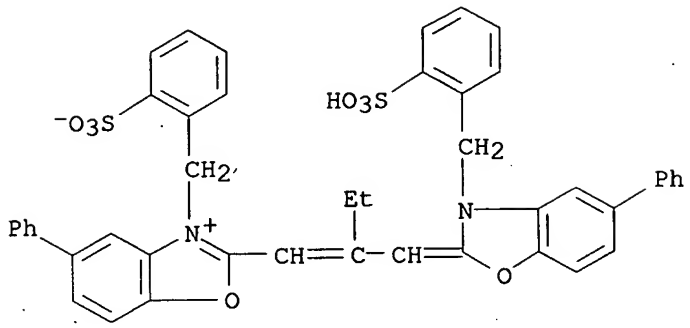
IT **187330-68-3P**
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(methine dye photog. spectral sensitizer)

RN 187330-68-3 HCAPLUS

CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

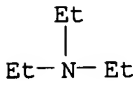
CM 1

CRN 187330-67-2
CMF C45 H36 N2 O8 S2



CM 2

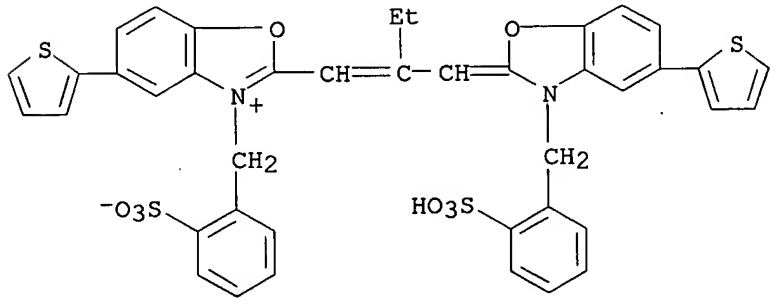
CRN 121-44-8
CMF C6 H15 N



IT **207680-68-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(methine dye photog. spectral sensitizer)
RN 207680-68-0 HCAPLUS
CN Benzoxazolium, 3-[(2-sulfophenyl)methyl]-2-[2-[[3-[(2-sulfophenyl)methyl]-5-(2-thienyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-5-(2-thienyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

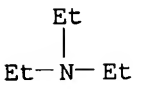
CM 1

CRN 207680-67-9
CMF C41 H32 N2 O8 S4

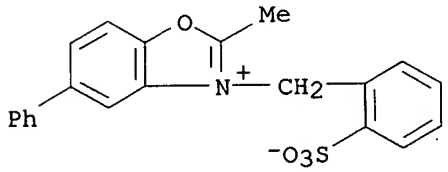


CM 2

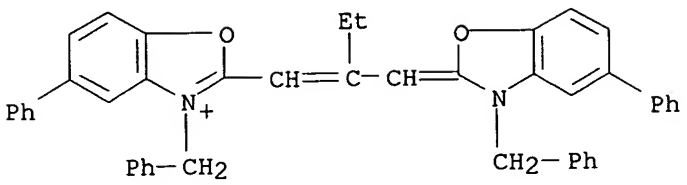
CRN 121-44-8
CMF C6 H15 N



IT **187330-93-4P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of methine dye photog. sensitizer)
RN 187330-93-4 HCAPLUS
CN Benzoxazolium, 2-methyl-5-phenyl-3-[(2-sulfophenyl)methyl]-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 21 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB A silver halide photog. emulsion showing improved photosensitivity contains silver halide grains having a light absorption strength of 100 or more.
1998:277588 Document Number 128:328717 Silver halide photographic emulsion. Yamashita, Katsuhiro; Kobayashi, Katsumi (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 838719 A2 **19980429**, 54 pp.
DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW.
APPLICATION: EP 1997-118444 19971023. PRIORITY: JP 1996-282595 19961024; JP 1996-348524 19961226.
IT **207231-48-9 207231-58-1 207231-82-1**
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. emulsions containing silver halide grains having high light absorption strength containing)
RN 207231-48-9 HCAPLUS
CN Benzoxazolium, 5-phenyl-3-(phenylmethyl)-2-[2-[[5-phenyl-3-(phenylmethyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-, bromide (9CI) (CA INDEX NAME)

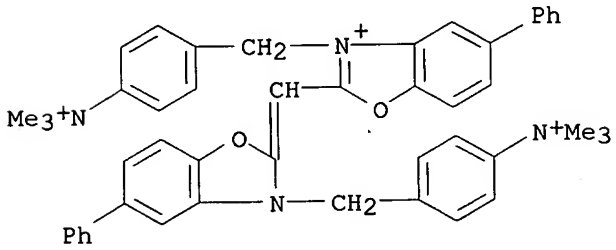


● Br^-

RN 207231-58-1 HCAPLUS
CN Benzoxazolium, 5-phenyl-2-[[5-phenyl-3-[[4-(trimethylammonio)phenyl]methyl]-2(3H)-benzoxazolylidene]methyl]-3-[[4-(trimethylammonio)phenyl]methyl]-, tribenzenesulfonate (9CI) (CA INDEX NAME)

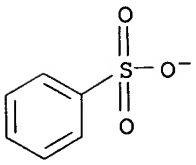
CM 1

CRN 207231-57-0
CMF C47 H47 N4 O2



CM 2

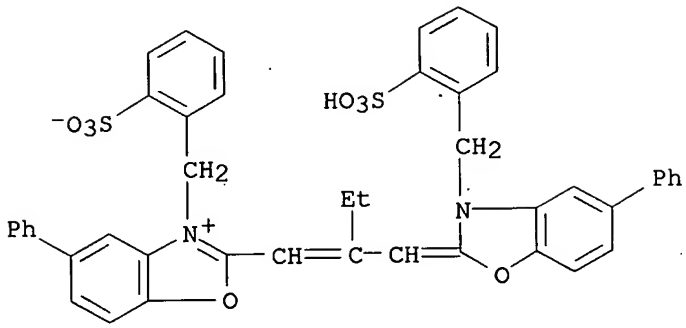
CRN 3198-32-1
CMF C6 H5 O3 S



RN 207231-82-1 HCAPLUS
CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 187330-67-2
CMF C45 H36 N2 O8 S2



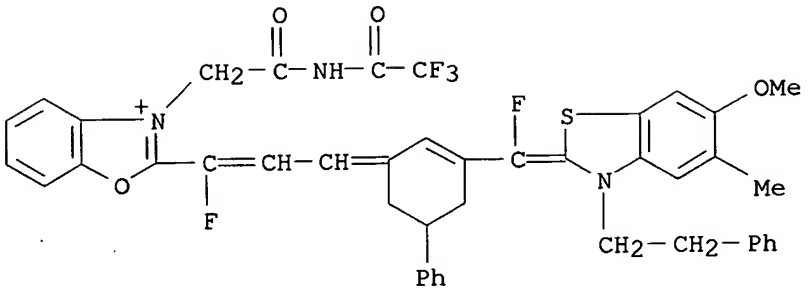
CM 2

CRN 110-86-1
CMF C5 H5 N

L9 ANSWER 22 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The title material contains a Ag halide emulsion layer spectrally sensitized with a polymethine dye in which the methine chains are replaced by ≥1 F and the aliphatic groups substituted on the N atom in the azole rings are linked by ≥3 methine groups having ≥1 water-soluble group. The material shows good storage stability, low residual color stain, and improved photog. properties.
1998:154902 Document Number 128:263877 Silver halide photographic material using polymethine sensitizing dye. Kagawa, Nobuaki; Kita, Noriyasu; Nakamura, Masaki; Ishii, Fumio (Konica Co., Japan). Japan Kokai Tokkyo Koho JP 10062889 A2 **19980306** Heisei, 62 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-217245 19960819.
IT **205172-98-1**
RL: TEM (Technical or engineered material use); USES (Uses)
(silver halide photog. emulsion sensitized with polymethine dye)
RN 205172-98-1 HCAPLUS
CN Benzoxazolium, 2-[1-fluoro-3-[3-[fluoro[6-methoxy-5-methyl-3-(2-phenylethyl)-2(3H)-benzothiazolylidene]methyl]-5-phenyl-2-cyclohexen-1-ylidene]-1-propenyl]-3-[2-oxo-2-[(trifluoroacetyl)amino]ethyl]-, ethyl sulfate (9CI) (CA INDEX NAME)

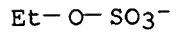
CM 1

CRN 205172-97-0
CMF C44 H37 F5 N3 O4 S



CM 2

CRN 48028-76-8
CMF C2 H5 O4 S



L9 ANSWER 23 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

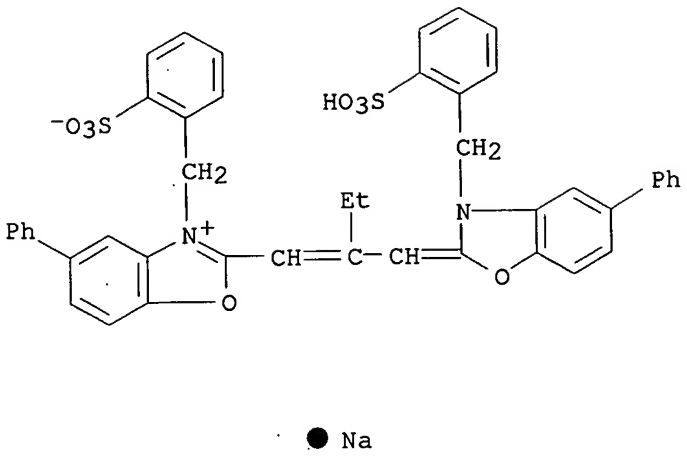
AB Claimed color image-forming method comprises (1) exposing and developing a photog. material (A) having ≥1 each of blue-, green- and red-sensitized Ag halide emulsion layers on support, (2) giving a scanning exposure of coherent light through the developed image to the emulsion layer of a 2nd photog. material (B) having ≥1 each of yellow-, magenta-, and cyan-dye-developing Ag halide emulsion layers, in which ≥1 emulsion layer of the material (a) does not contain a coupler, and the spectral sensitization is adjusted to receive the coherent scanning exposure, and which the material (B) is scanned at the rate of ≤1 + 10-4 s. The advantages of the print making system are (1) a low-cost photog. material is used for the material (A), (2) high quality image is available on material (B), and (3) rapid print-making with good consistency is also available. In the example, a multilayer color neg. film containing no magenta coupler in the green-sensitive layer was combined with a multilayer color paper.

1997:802341 Document Number 128:121643 Color image-forming method for obtaining color copies by adjusting the spectral sensitivity to the scanning exposure light. Otani, Shigeaki (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 09325458 A2 **19971216** Heisei, 65 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-160872 19960531.

IT **187330-69-4**
RL: DEV (Device component use); USES (Uses)
(dye; color image-forming method for obtaining color copies by adjusting spectral sensitivity to scanning exposure light)

RN 187330-69-4 HCAPLUS

CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

L9 ANSWER 24 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

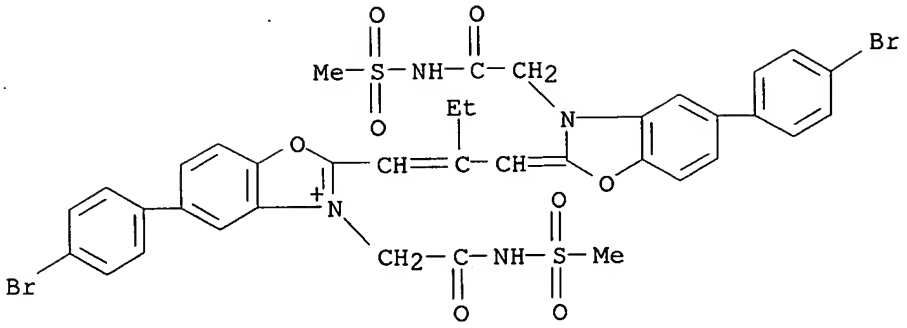
AB The title material contains I (M = H, alkali metal, quaternary ammonium) or II (R21-22 = OR25, NR26R27; R25 = H, alkyl, aryl, heterocycle; R23-24, R26-27 = group which accelerates adsorption to Ag halides, ≥1 of R23-27 is the adsorption-accelerating group or a group substituted for the group) and III (Y31 = O, S, Se, amine; Z3 = atoms required to complete a 5- or 6-membered N-containing heterocycle; X31 = counter ion; n31 = 0, 1) or IV (Y41 = O, S, Se, amine; V41-47 = H, substituent; X41 = halo; L41-43 = methine group; E4 = auxochrome; n41 ≥ 0; M41 = charge-neutralizing ion) in the Ag halide photosensitive layer. The material provides improved white backgrounds and shows stable photog. properties independent of the variation of the color development processing solns.

1997:453293 Document Number 127:88051 Silver halide photographic photosensitive material and image formation using it. Ikeda, Takeshi; Tanaka, Shigeo; Chino, Shigeo; Nojima, Takahiko (Konica Co., Japan). Japan Kokai Tokkyo Koho JP 09152674 A2 **19970610** Heisei, 41 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-312249 19951130.

IT **191670-31-2**
RL: MOA (Modifier or additive use); USES (Uses)
(additive; silver halide photog. photosensitive materials containing additives for white background and processing stability)

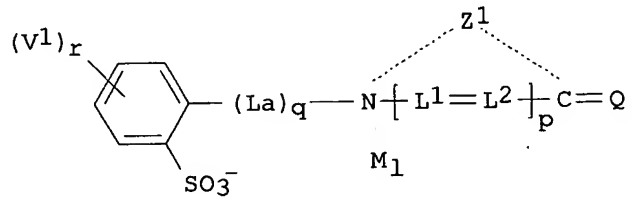
RN 191670-31-2 HCAPLUS

CN Benzoxazolium, 5-(4-bromophenyl)-2-[2-[[5-(4-bromophenyl)-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)

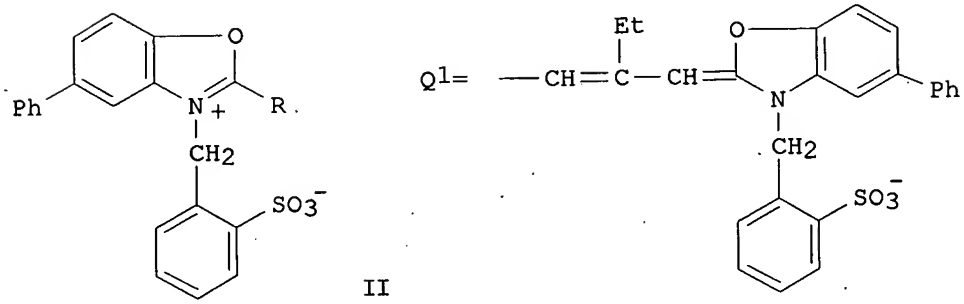


● Br^-

L9 ANSWER 25 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II

AB Claimed is a silver halide photog. photosensitive material possessing on a support at least one silver halide emulsion layer containing at least one sensitizing cyanine dye (I; La = methylene; V1 = monovalent substituent; p = 0,1; q = 1-4; r = 0, 1-4; L1, L2 = methine; Z1 = a group of atoms required to form a 5- or 6-membered N-containing ring; M = counter ion equalizing charge; m = number ≥0 required to neutralize the mol. charge; Q = heterocyclyl- or phenyl-substituted methine or polymethine), wherein silver halide grains of the emulsion layer are reduction-sensitized. Above photog. material also containing a transparent magnetic recording layer

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is claimed. This photog. material provides high sensitivity, reduced fog, and excellent storage stability. Thus, 2-methyl-5-phenylbenzoxazole was alkylated by benzoxathiolane (II) at 150° for 2 h to give N-benzylbenzoxazolium inner salt (II; R = Me), which was condensed with tri-Et orthopropionate in the presence of Et3N in AcOH and pyridine at 140° for 2 h to give the sensitizing dye II (R = Q1).

1997:184474 Document Number 126:192866 A silver halide photographic photosensitive material containing cyanine dye sensitizers. Hioki, Takanori; Ihama, Mikio (Fuji Photo Film Co Ltd, Japan). Japan Kokai Tokkyo Koho JP 09015778 A2 **19970117** Heisei, 64 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-184976 19950629.

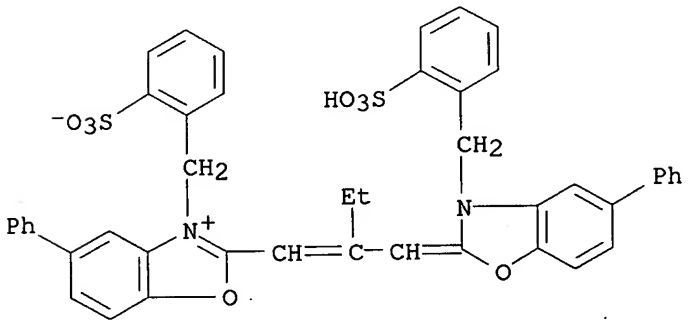
IT **187330-68-3P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cyanine dye sensitizer; silver halide photog. photosensitive material containing reduction-sensitized silver halide and sensitizing cyanine dyes)

RN 187330-68-3 HCAPLUS

CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

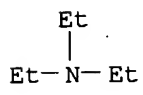
CM 1

CRN 187330-67-2
CMF C45 H36 N2 O8 S2



CM 2

CRN 121-44-8
CMF C6 H15 N



IT **187330-69-4 187330-72-9 187330-73-0 187330-77-4 187330-78-5 187330-80-9**
RL: TEM (Technical or engineered material use); USES (Uses)
(cyanine dye sensitizer; silver halide photog. photosensitive material containing reduction-sensitized silver halide and sensitizing cyanine dyes)

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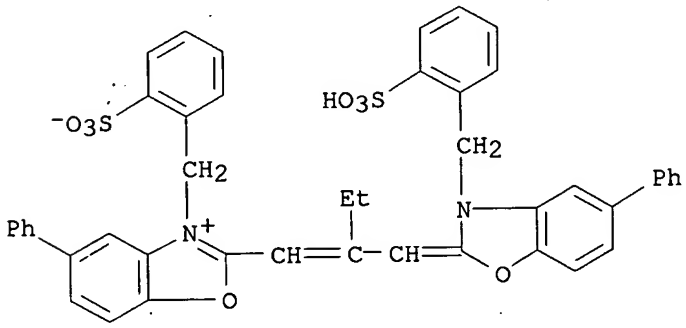
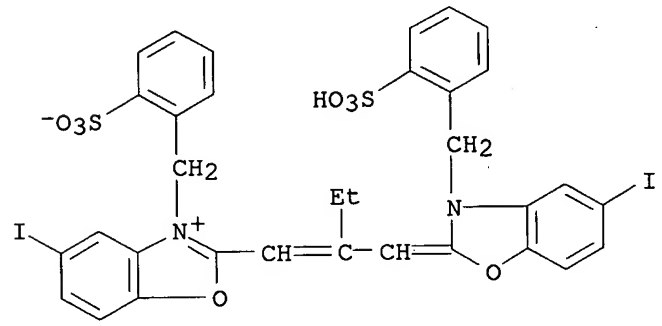
RN 187330-69-4 HCAPLUS
CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, sodium salt (9CI) (CA INDEX NAME)



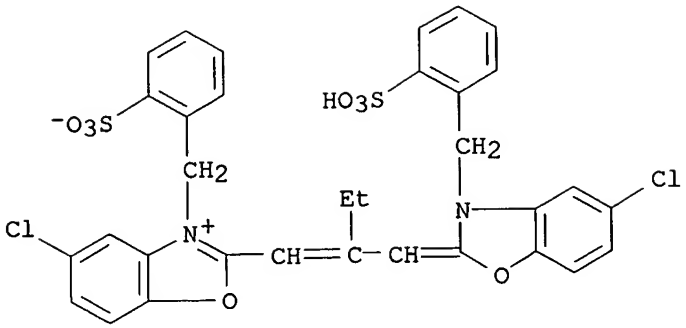
● Na

RN 187330-72-9 HCAPLUS
CN Benzoxazolium, 5-iodo-2-[2-[[5-iodo-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, potassium salt (9CI) (CA INDEX NAME)



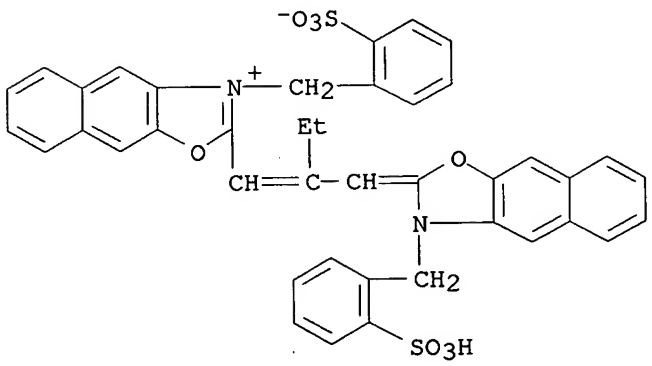
● K

RN 187330-73-0 HCAPLUS
CN Benzoxazolium, 5-chloro-2-[2-[[5-chloro-3-[(2-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, sodium salt (9CI) (CA INDEX NAME)



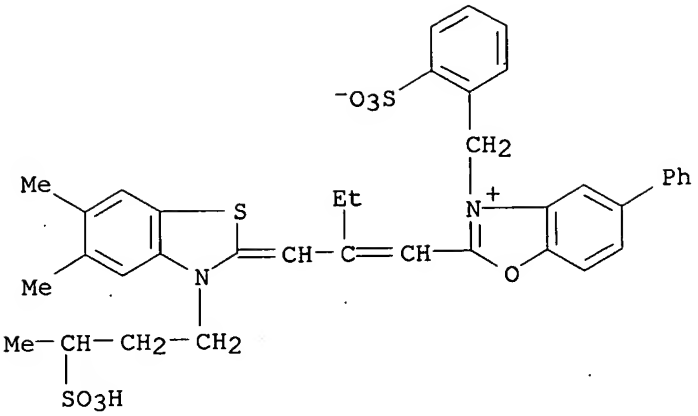
● Na

RN 187330-77-4 HCAPLUS
CN Naphth[2,3-d]oxazolium, 3-[(2-sulfophenyl)methyl]-2-[2-[[3-[(2-sulfophenyl)methyl]naphth[2,3-d]oxazol-2(3H)-ylidene]methyl]-1-butenyl]-, inner salt, sodium salt (9CI) (CA INDEX NAME)



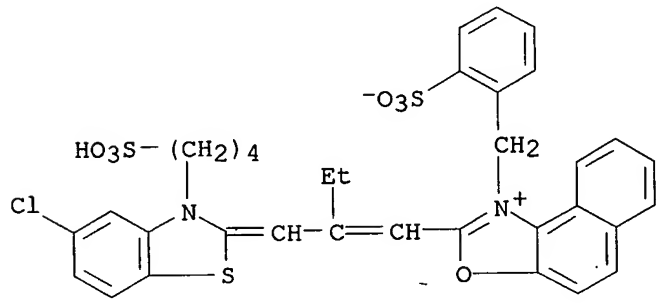
● Na

RN 187330-78-5 HCAPLUS
CN Benzoxazolium, 2-[2-[[5,6-dimethyl-3-(3-sulfobutyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-5-phenyl-3-[(2-sulfophenyl)methyl]-, inner salt, potassium salt (9CI) (CA INDEX NAME)



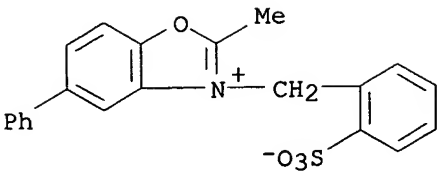
● K

RN 187330-80-9 HCAPLUS
CN Naphth[1,2-d]oxazolium, 2-[2-[[5-chloro-3-(4-sulfobutyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-1-[(2-sulfophenyl)methyl]-, inner salt, sodium salt (9CI) (CA INDEX NAME)

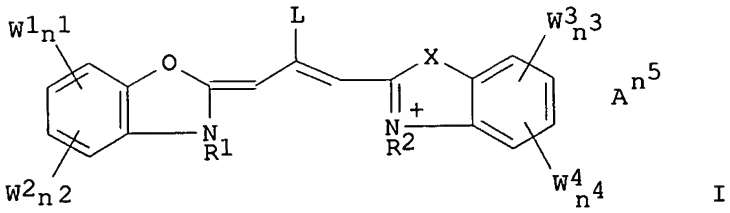


● Na

IT **187330-93-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(silver halide photog. photosensitive material containing reduction-sensitized
silver halide and sensitizing cyanine dyes)
RN 187330-93-4 HCAPLUS
CN Benzoxazolium, 2-methyl-5-phenyl-3-[(2-sulfophenyl)methyl]-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 26 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I

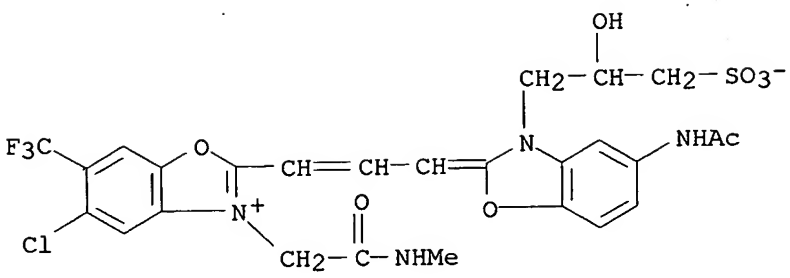
AB The claimed photog. material contains, at least in one of the emulsion layers, a spectral sensitizer I (W1 = F-containing alkyl; W2, W3, W4 = aliphatic, aromatic, halo, acylamino, sulfamoyl, carboxy, sulfonamido; n1 = 1, 2; n2, n3, n4 = 0, 1, 2; R1, R2 = aliphatic or aromatic group; X = O, alkyl-substituted N; L = H, alkyl; A = counter-ion; n5 = 0, 1). The dye is easily washed out of the photog. layer, leaving little residual dye stain, and provides effective sensitization at green spectral region.

1996:212217 Document Number 124:302413 Silver halide photographic material spectrally sensitized by green-sensitizing fluorine-containing benzoxacarbocyanine to reduce residual dye stain. Nakamura, Masaki; Kagawa, Nobuaki (Konishiroku Photo Ind, Japan). Japan Kokai Tokkyo Koho JP 08006198 A2 **19960112** Heisei, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-135993 19940617.

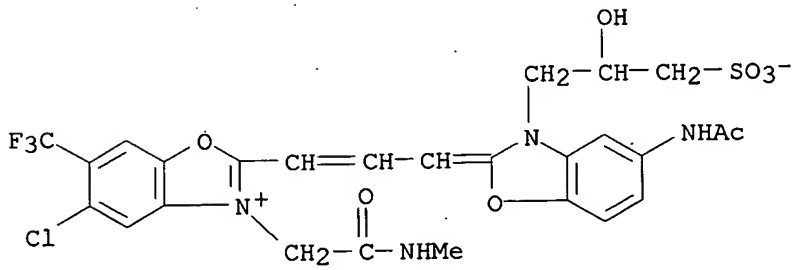
IT **175785-32-7**
RL: DEV (Device component use); USES (Uses)
(silver halide photog. material spectrally sensitized by green-sensitizing fluorine-containing benzoxacarbocyanine to reduce residual dye stain)

RN 175785-32-7 HCAPLUS

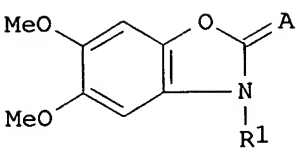
CN Benzoxazolium, 2-[3-[5-(acetylamino)-3-(2-hydroxy-3-sulfopropyl)-2(3H)-benzoxazolylidene]-1-propenyl]-5-chloro-3-[2-(methylamino)-2-oxoethyl]-6-(trifluoromethyl)-, inner salt (9CI) (CA INDEX NAME)



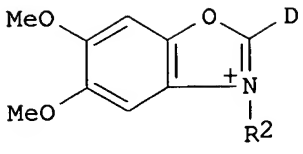
L9 ANSWER 27 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The claimed photog. materials contain, at least in one of the emulsion layers, a spectral sensitizer I (W1 = F-containing alkyl; W2 = substituent having Hammett's σ-p constant of ≥-0.2; n1, n2 = 1, 2; R1, R2 = aliphatic or aromatic group; Z = oxazole, naphthoxazole, benzoxazole, imidazole, benzimidazole, naphthoimidazole, thiazole, benzothiazole, naphthothiazole, selenazole, benzoslenazole, naphthoselenazole, tellurazole, benzotellurazole, naphthotellurazole; L1, L2, L3 = methyne; n3 = 1, 2, 3, 4; X = anion; n4 = 0, 1). The dye is easily washed out of the photog. layer, leaving little residual dye stain, and maintains high sensitization efficiency.
1996:212216 Document Number 124:302412 Silver halide photographic materials spectrally sensitized by fluorine-containing benzoxacarbocyanine to reduce residual dye stain. Nakamura, Masaki; Kagawa, Nobuaki (Konishiroku Photo Ind, Japan). Japan Kokai Tokkyo Koho JP 08006197 A2 **19960112** Heisei, 21 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-134373 19940616.
IT **175785-32-7**
RL: DEV (Device component use); USES (Uses)
(silver halide photog. material spectrally sensitized by fluorine-containing benzoxacarbocyanine to reduce residual dye stain)
RN 175785-32-7 HCAPLUS
CN Benzoxazolium, 2-[3-[5-(acetylamino)-3-(2-hydroxy-3-sulfopropyl)-2(3H)-benzoxazolylidene]-1-propenyl]-5-chloro-3-[2-(methylamino)-2-oxoethyl]-6-(trifluoromethyl)-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 28 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I



X^- II

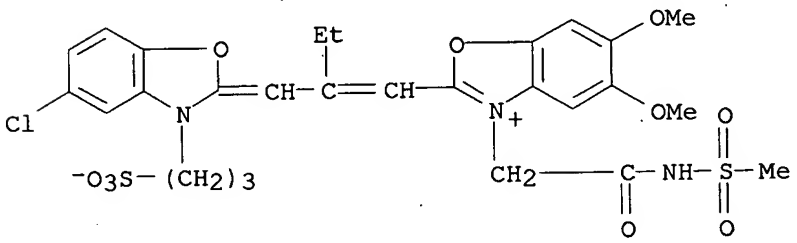
AB The claimed photog. material has at least one Ag halide emulsion layer spectrally sensitized by a merocyanine dye I (R1 = C1-10 aliphatic group with water-solubilizing substituent; A = group forming a merocyanine dye and linked through conjugated bonds with the oxazole moiety) or cyanine dye II (R2 = C1-10 aliphatic group with water-solubilizing substituent; D = group forming a cyanine dye and linked through conjugated bonds with the oxazole moiety; X- = counter ion). The spectral sensitizers increase both photog. speed and wash off property resulting in low residual dye stain. They are suited for color papers and medical x-ray films of rapid processing types.

1995:951720 Document Number 124:101746 Silver halide photographic material spectrally sensitized by cyanine dye. Kita, Noryasu; Kagawa, Nobuaki (Konishiroku Photo Ind, Japan). Japan Kokai Tokkyo Koho JP 07209792 A2 **19950811** Heisei, 51 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-2731 19940114.

IT **172356-56-8 172356-99-9**
RL: DEV (Device component use); USES (Uses)
(silver halide photog. material spectrally sensitized by cyanine dye)

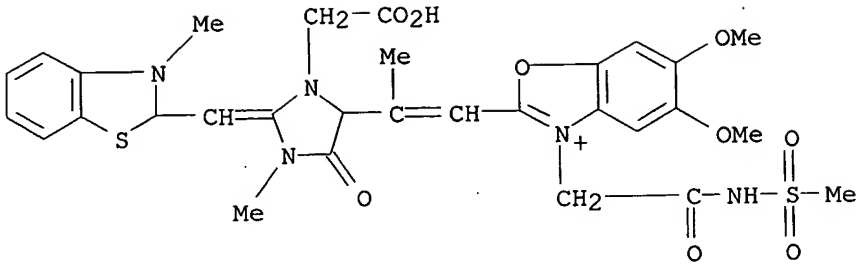
RN 172356-56-8 HCAPLUS

CN Benzoxazolium, 2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-5,6-dimethoxy-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-, inner salt (9CI) (CA INDEX NAME)



RN 172356-99-9 HCAPLUS

CN Benzoxazolium, 2-[2-[3-(carboxymethyl)-2-[(2,3-dihydro-3-methyl-2-benzothiazolyl)methylene]-1-methyl-5-oxo-4-imidazolidinyl]-1-propenyl]-5,6-dimethoxy-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

L9 ANSWER 29 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Compns., which can be cured by either irradiation or heat and are useful as coatings and adhesives, comprise aromatic N-containing heterocyclic cationic polymerization initiators, photopolymn. initiators, ferrocene derivs., and cationically polymerizable compds. Thus, a solution containing epoxy resin ERL 4221 100, 1-methyl-2,6-dichloropyridinium hexafluoroantimonate 2, benzoin Bu ether 2, and ferrocene 2 parts in propylene carbonate was applied to a tin plate at a 3-μm thickness and UV-irradiated at room temperature and 2 J/cm2 to give a tack-free film.

1995:905614 Document Number 124:31230 Photocurable and thermosetting compositions. Takahashi, Eiji; Muramoto, Hiroo (Nippon Soda Co, Japan). Japan Kokai Tokkyo Koho JP 07196712 A2 **19950801** Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-350637 19931228.

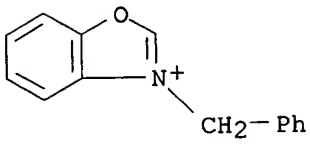
IT **171912-76-8**
RL: CAT (Catalyst use); POF (Polymer in formulation); USES (Uses)
(photo- and thermo-setting compns.)

RN 171912-76-8 HCAPLUS

CN Benzoxazolium, 3-(phenylmethyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

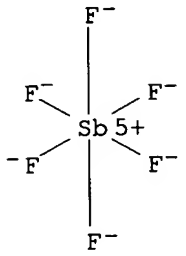
CM 1

CRN 171912-75-7
CMF C14 H12 N O



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



L9 ANSWER 30 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

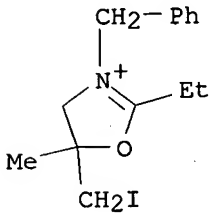
AB Mild and highly chemoselective α-iodination reactions of N-allylic carboxamides and lactams are reported. N-Allylic amides and lactams reacted with I2 and 2,6-lutidine at room temperature to give α-iodo amides and lactams in moderate to good yields. The exclusive α-iodination of N-allylic amides having another acidic hydrogen in the mol. proceeded under these conditions. The iodides obtained were converted to the bicyclic lactam or the β-lactam derivs. with high stereoselectivity by a radical iodine atom-transfer reaction or a nucleophilic substitution reaction.

1995:865222 Document Number 124:86006 A Mild and Highly Chemoselective α-Iodination of N-Allylic Carboxamides and Lactams. Kitagawa, Osamu; Kikuchi, Norihiko; Hanano, Tokushi; Aoki, Katsuyuki; Yamazaki, Tomomi; Okada, Midori; Taguchi, Takeo (Tokyo College of Pharmacy, Hachioji, 192-03, Japan). Journal of Organic Chemistry, 60(22), 7161-5 (English) **1995**. CODEN: JOCEAH. ISSN: 0022-3263. OTHER SOURCES: CASREACT 124:86006. Publisher: American Chemical Society.

IT **172326-60-2**
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent)
(a mild and highly chemoselective α-iodination of N-allylic carboxamides and lactams)

RN 172326-60-2 HCAPLUS

CN Oxazolium, 2-ethyl-4,5-dihydro-5-(iodomethyl)-5-methyl-3-(phenylmethyl)-, iodide (9CI) (CA INDEX NAME)



L9 ANSWER 31 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

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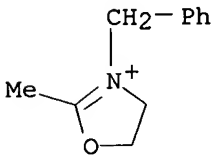
AB Catalysts containing quaternary N atoms are used for curing epoxy resin-based coatings, adhesives, inks, etc. A mixture of 100 parts UVR 6410 (epoxy resin) and 2.5 parts N-benzyl-2-methyloxazolinium hexafluoroantimonate in propylene carbonate was prepared and heated 30 min at 150° to give a cured product showing glass temperature 136°.

1995:721582 Document Number 123:342064 Epoxy resins containing onium catalysts for cured products with high glass temperature. Takahashi, Eiji; Muramoto, Hiroo (Nippon Soda Co, Japan). Japan Kokai Tokkyo Koho JP 07126314 A2 **19950516** Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-297373 19931102.

IT **159616-46-3P 169502-59-4P 169502-61-8P 169502-63-0P 169502-65-2P 169502-67-4P 169502-69-6P 169502-71-0P 169502-79-8P 169502-90-3P 169502-91-4P 169502-92-5P 169502-93-6P 169502-94-7P 169502-95-8P 169502-99-2P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(catalysts; preparation and use for curing of epoxy resins for high glass temperature)

RN 159616-46-3 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)

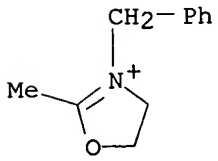


● Br^-

RN 169502-59-4 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-(phenylmethyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

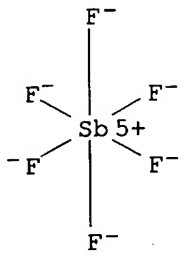
CM 1

CRN 169502-58-3
CMF C11 H14 N O



CM 2

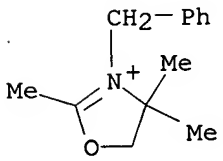
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 169502-61-8 HCAPLUS
CN Oxazolium, 4,5-dihydro-2,4,4-trimethyl-3-(phenylmethyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

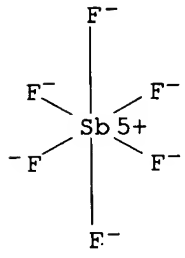
CM 1

CRN 169502-60-7
CMF C13 H18 N O



CM 2

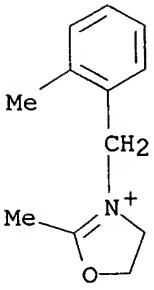
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 169502-63-0 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-[(2-methylphenyl)methyl]-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

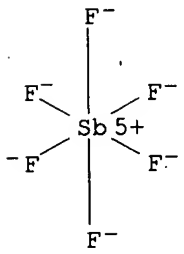
CM 1

CRN 169502-62-9
CMF C12 H16 N O



CM 2

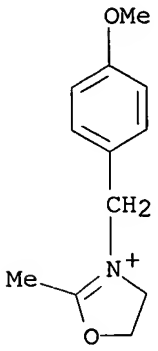
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 169502-65-2 HCAPLUS
CN Oxazolium, 4,5-dihydro-3-[(4-methoxyphenyl)methyl]-2-methyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

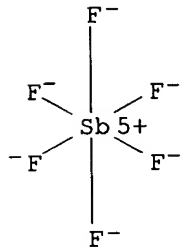
CM 1

CRN 169502-64-1
CMF C12 H16 N O2



CM 2

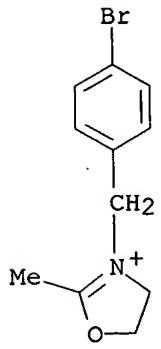
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 169502-67-4 HCAPLUS
CN Oxazolium, 3-[(4-bromophenyl)methyl]-4,5-dihydro-2-methyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

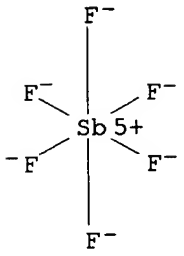
CM 1

CRN 169502-66-3
CMF C11 H13 Br N O



CM 2

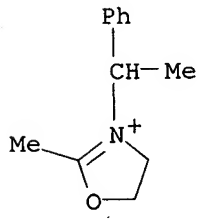
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 169502-69-6 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-(1-phenylethyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

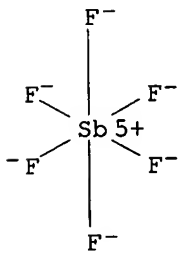
CM 1

CRN 169502-68-5
CMF C12 H16 N O



CM 2

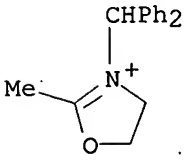
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 169502-71-0 HCAPLUS
CN Oxazolium, 3-(diphenylmethyl)-4,5-dihydro-2-methyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

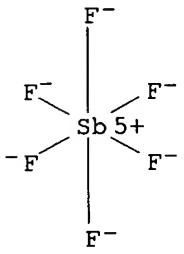
CM 1

CRN 169502-70-9
CMF C17 H18 N O



CM 2

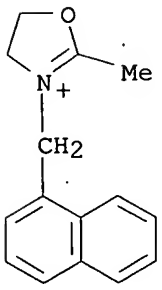
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 169502-79-8 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-(1-naphthalenylmethyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 169502-78-7
CMF C15 H16 N O



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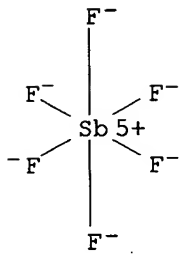
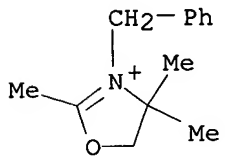
CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS

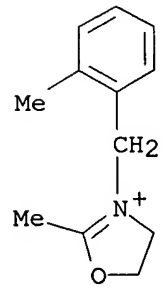


RN 169502-90-3 HCAPLUS
CN Oxazolium, 4,5-dihydro-2,4,4-trimethyl-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



● Br^-

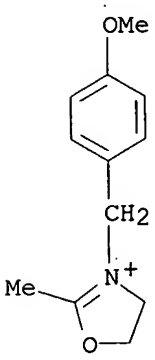
RN 169502-91-4 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-[(2-methylphenyl)methyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

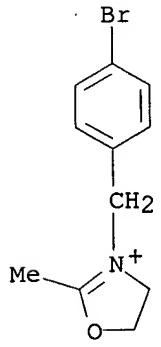
Delacroix

RN 169502-92-5 HCAPLUS
CN Oxazolium, 4,5-dihydro-3-[(4-methoxyphenyl)methyl]-2-methyl-, chloride (9CI) (CA INDEX NAME)



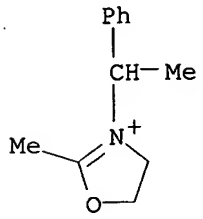
● Cl^-

RN 169502-93-6 HCAPLUS
CN Oxazolium, 3-[(4-bromophenyl)methyl]-4,5-dihydro-2-methyl-, bromide (9CI) (CA INDEX NAME)



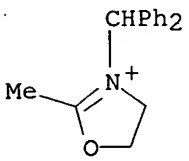
● Br^-

RN 169502-94-7 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-(1-phenylethyl)-, bromide (9CI) (CA INDEX NAME)



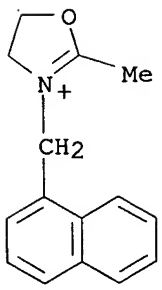
● Br^-

RN 169502-95-8 HCAPLUS
CN Oxazolium, 3-(diphenylmethyl)-4,5-dihydro-2-methyl-, bromide (9CI) (CA INDEX NAME)



● Br^-

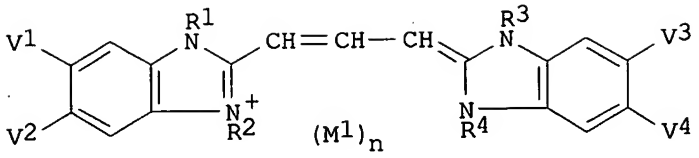
RN 169502-99-2 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-(1-naphthalenylmethyl)-, chloride (9CI) (CA INDEX NAME)



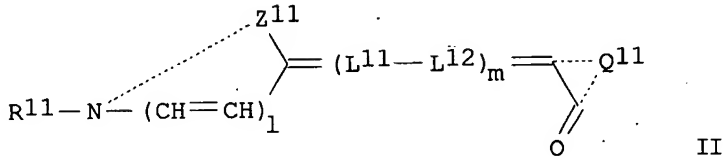
● Cl^-

L9 ANSWER 32 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI

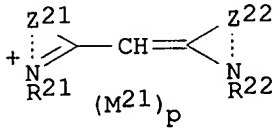
Delacroix



I



II



III

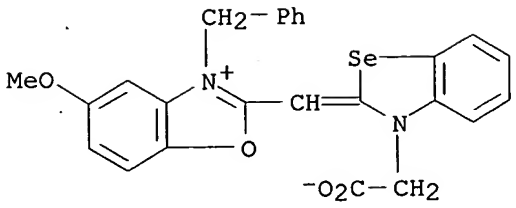
AB A silver halide photog. material has high sensitivity in the green region and showing little staining due to residual sensitizing dyes after processing comprises ≥1 dye having the formula I [R1-4 = an aliphatic group with ≥1 of R2 and R4 being substituted by a water-soluble group; V1-4 = H, alkyl, alkoxy, aryl, halogen, carbamoyl, sulfamoyl, acylamino, alkoxycarbonyl, cyano, alkylsulfonyl, arylsulfonyl, acyl, or perfluoroalkyl; (M1)n = ions to neutralize the charge of the mol.], ≥1 dye having the formula II [Z11 = a nonmetallic atomic group necessary to form a 5-6-membered N-containing heterocyclic ring; Q11 = a 5-6-membered CO-containing carbonic or heterocyclic ring; R11 = an aliphatic group; L11, L12 = (substituted) methylene; m = 0 or 1], and ≥1 dye having the formula III [Z21, Z22 = a nonmetallic atomic group necessary to form a 5-membered N-containing heterocyclic ring; R21, R22 = an aliphatic group with ≥1 of R21 and R22 being substituted by a water-soluble group; (M21)p = ions to neutralize the charge of the mol.] and the silver halide grains occupying ≥70% of the projected area are tabular grains having an aspect ratio of ≤1.20.

1995:712030 Document Number 123:97742 Silver halide photographic material. Kagawa, Nobuaki; Kita, Noryasu (Konishiroku Photo Ind, Japan). Japan Kokai Tokkyo Koho JP 07036143 A2 **19950207** Heisei, 51 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-181451 19930722.

IT **165595-09-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(silver halide photog. emulsion sensitizing dye compns. containing)

RN 165595-09-5 HCAPLUS

CN Benzoxazolium, 2-[[3-(carboxymethyl)-2(3H)-benzoselenazolylidene]methyl]-5-methoxy-3-(phenylmethyl)-, inner salt (9CI) (CA INDEX NAME)



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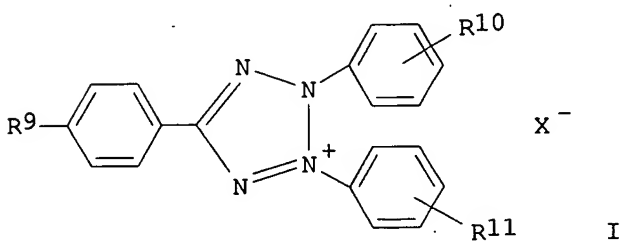


I

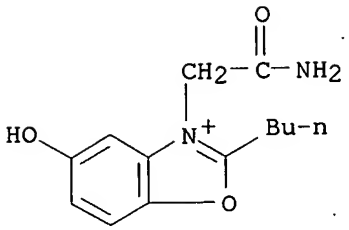
AB The Ag halide photog. material having ≥1 photog. layer containing solid dispersed dye particles is packed to show inside relative humidity at 18-30° 10-60%. The dye may be organic salts shown as A1:L1(L2:L3)nA2, A:L11(L12:L13)mQ, A3:(L21:L22)l:B, (NR1R2:CR3R4)+(X1)-, and (NR5R6R7R8)+(X2)- or a Ag salt [A, A1-3 = acidic group; B = basic group; Q = aryl, heterocycle; L1-3, L11-13, L21-22 = methyne; l = 1, 2; m = 0, 1; n = 0-2; each allylic compound has ≥1 sulfonyl and/or carboxyl group; R1-8 = H, alkyl, alkenyl, aryl, heterocycle; R5-7 ≠ H; R1-4 and R5-8 may form ring(s), resp.]. The material may contain a tetrazolium compound I (R9-11 = substituents) and/or ≥1 hydrazine derivative The material showed high sensitivity and longer shelf life.

1995:693798 Document Number 123:183364 Silver halide photographic material with humidity-controlled packaging. Atoyama, Hiroyuki; Sakata, Hideaki; Muramatsu, Yasuhiko (Konishiroku Photo Ind, Japan). Japan Kokai Tokkyo Koho JP 07128792 A2 **19950519** Heisei, 33 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-275772 19931104.

IT **161113-68-4**
RL: TEM (Technical or engineered material use); USES (Uses)
(solid dispersed dye; silver halide photog. materials with humidity-controlled packaging)

RN 161113-68-4 HCAPLUS

CN Benzoxazolium, 3-(2-amino-2-oxoethyl)-2-butyl-5-hydroxy-, bromide (9CI) (CA INDEX NAME)



● Br^-

L9 ANSWER 34 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
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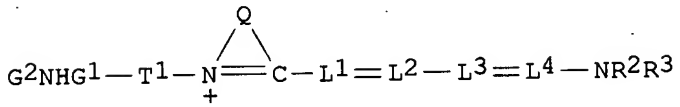
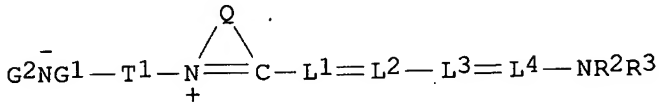


I



II

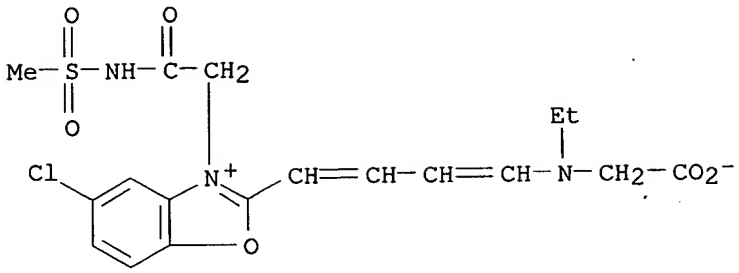
AB The photog. materials contain the compound I or II (Q = benzoxazole, thiazoline; L1-4 = methine; T1 = divalent residue; G1 = CO, SO, SO2; G2 = COT2, SOT2, SO2T2, CN; T2 = monovalent residue; R2-3 = alkyl, alkylene forming heterocycle; X- = anion). The methine compds. I and II are claimed. The materials prevent residual color stains.

1995:693795 Document Number 123:183362 Silver halide photographic materials and methine compounds. Inagaki, Yoshio (Fuji Photo Film Co Ltd, Japan). Japan Kokai Tokkyo Koho JP 07128782 A2 **19950519** Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-276653 19931105.

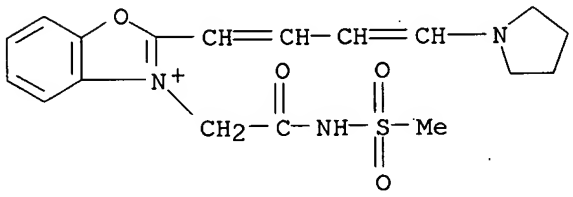
IT **167687-00-5 167687-02-7**
RL: DEV (Device component use); USES (Uses)
(hemicyanine spectral sensitizing dyes for silver halide photog. materials)

RN 167687-00-5 HCAPLUS

CN Benzoxazolium, 2-[4-[(carboxymethyl)ethylamino]-1,3-butadienyl]-5-chloro-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-, inner salt (9CI) (CA INDEX NAME)



RN 167687-02-7 HCAPLUS
CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[4-(1-pyrrolidinyl)-1,3-butadienyl]-, bromide (9CI) (CA INDEX NAME)



L9 ANSWER 35 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
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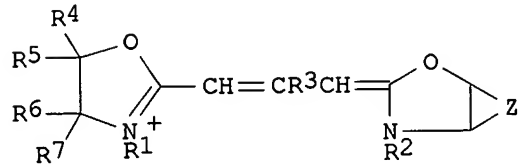
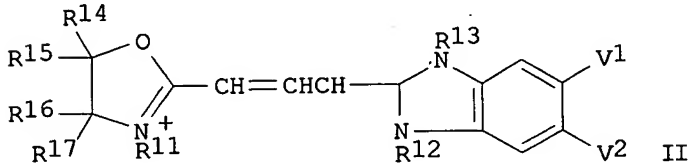


I



II

AB The photog. materials comprise a support having ≥1 photog. emulsion layer(s) and Ag halide particles contained in at least 1 layer of the emulsion layer(s) are spectrally sensitized with ≥1 cyanine dyes selected from I (R1-2 = C1-10 aliphatic group; R3 = H, alkyl, aryl,

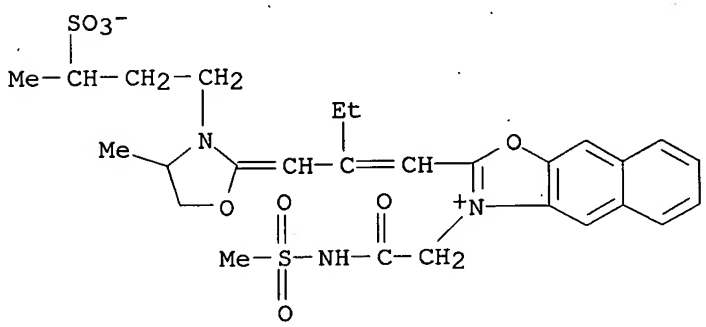
heterocyclyl; R4-7 = H, halo, alkoxy, aryloxy, aralkyl, alkyl, aryl, heterocyclyl; R1 and/or R2 = group having water-soluble group; Z = atmospheric group needed to form oxazole, oxazoline, or condensed oxazole ring; M1 = ion needed to cancel the total charge of the mol.; n1 = integer needed to neutralize the charge in the mol.) and II (R11-13 = C1-10 aliphatic group; V1-2 = H, alkyl, alkylthio, electron-attracting group; R14-17 have the same definition as R4-7; R11 and/or R12 = group having water-soluble group; V1 and/or V2 = electron-attracting group; M2 = ion needed to cancel the total charge of the mol.; n2 = integer needed to neutralize the charge in the mol.). The photog. materials show decreased spot formation by residual color after development and fixation and sensitized for the short wave-length region of the green light.

1995:643570 Document Number 123:212968 Photographic materials using silver halide particles sensitized with cyanine dyes having water-soluble group. Kagawa, Nobuaki (Konishiroku Photo Ind, Japan). Japan Kokai Tokkyo Koho JP 07104418 A2 **19950421** Heisei, 24 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-248127 19931004.

IT **167634-11-9**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photog. materials containing cyanine dyes having water-soluble group as green light sensitizers for prevention of spots due to residual color)

RN 167634-11-9 HCAPLUS

CN Naphth[2,3-d]oxazolium, 2-[2-[[4-methyl-3-(3-sulfobutyl)-2-oxazolidinylidene]methyl]-1-butenyl]-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 36 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

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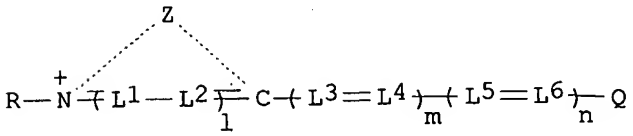


(X)p I

AB The title photog. material contains in ≥ 1 photog. image-forming layers jet mill comminuted solid dye (I) [Z = atoms required to complete 5- or 6-membered N heterocycle, Q = aryl, heterocyclyl; R = alkyl, alkenyl, alkynyl; L1-6 = methyne; R may form a ring with L3; l, m, n = 0, 1; m + n ≥ 1; X = charge-neutralizing ion; p ≥0; ≥ 1 selected from SO3H, COOH, sulfonamido, sulfamoyl, and phenolic OH is present in the mol.].

1995:416213 Document Number 122:174173 High-contrast silver halide photographic material. Yamada, Taketoshi; Hanyu, Takeshi (Konishiroku Photo Ind, Japan). Japan Kokai Tokkyo Koho JP 06230519 A2 **19940819** Heisei, 36 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-15503 19930202.

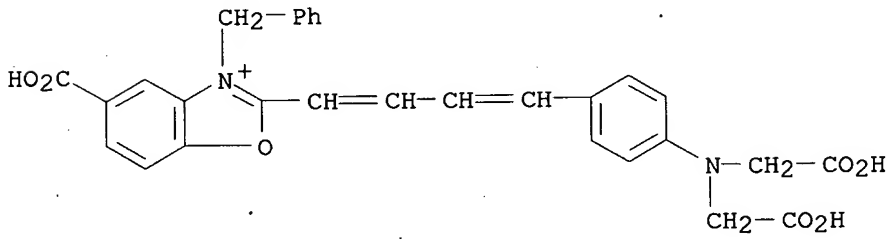
IT **161553-61-3**
RL: DEV (Device component use); USES (Uses)
(high-contrast low-haze photog. film containing)

RN 161553-61-3 HCAPLUS

CN Benzoxazolium, 2-[4-[4-[bis(carboxymethyl)amino]phenyl]-1,3-butadienyl]-5-carboxy-3-(phenylmethyl)-, perchlorate (9CI) (CA INDEX NAME)

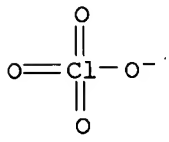
CM 1

CRN 161553-60-2
CMF C29 H25 N2 O7



CM 2

CRN 14797-73-0
CMF Cl O4



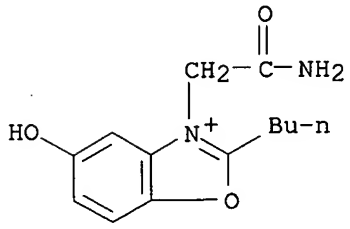
L9 ANSWER 37 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The title material has ≥1 layers containing a dye-organic salt complex comprised of A1:L1(L2:L3)nA2 [A1, A2 = acidic nucleus; L1-3 = methine; n = 0-2] and either R1R2N+:CR3R4.X1 [R1-4 = H, alkyl, alkenyl, aryl, heterocyclyl; R1-4 may join together to form ring; X1 = anion] or R5R6N+R7R8.X2 [R5-7 = alkyl, alkenyl, aryl, heterocyclyl; R8 = H, alkyl,

aryl, heterocyclyl; R5-8 may join together to form ring; X2 = anion].
1995:374670 Document Number 122:147049 Silver halide color photographic material with anti-diffusion dye for good decoloring properties. Oonishi, Akira; Yamada, Taketoshi; Usagawa, Yasushi (Konishiroku Photo Ind, Japan). Japan Kokai Tokkyo Koho JP 06214345 A2 **19940805** Heisei, 53 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-5991 19930118.

IT **161113-68-4**
RL: DEV (Device component use); USES (Uses)
(silver halide color photog. material)

RN 161113-68-4 HCAPLUS
CN Benzoxazolium, 3-(2-amino-2-oxoethyl)-2-butyl-5-hydroxy-, bromide (9CI) (CA INDEX NAME)

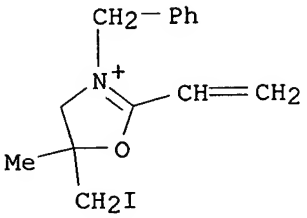


● Br^-

L9 ANSWER 38 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The Diels-Alder reaction of N-allylic enamide and α,β-unsatd. lactam derivs. proceeded in the presence of I2 at low temperature through a cationic iodolactonization intermediate. With some substrates, this method of activation was proved to be more effective than by use of Lewis acids.
1995:357305 Document Number 123:198306 Diels-Alder reaction of N-allylic enamides and lactam derivatives through iodine mediated activation. Kitagawa, Osamu; Aoki, Katsuyuki; Inoue, Tadashi; Taguchi, Takeo (Tokyo College Pharmacy, Tokyo, 192-03, Japan). Tetrahedron Letters, 36(4), 593-6 (English) **1995**. CODEN: TELEAY. ISSN: 0040-4039. OTHER SOURCES: CASREACT 123:198306. Publisher: Elsevier.

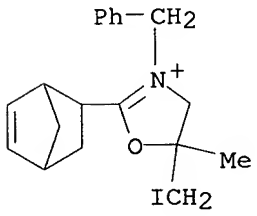
IT **167701-61-3P 167701-62-4P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(Diels-Alder reaction of allylic enamides and lactam derivs.in presence of iodine)

RN 167701-61-3 HCAPLUS
CN Oxazolium, 2-ethenyl-4,5-dihydro-5-(iodomethyl)-5-methyl-3-(phenylmethyl)-, iodide (9CI) (CA INDEX NAME)



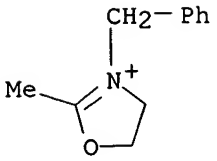
● I^-

RN 167701-62-4 HCAPLUS
CN Oxazolium, 2-bicyclo[2.2.1]hept-5-en-2-yl-4,5-dihydro-5-(iodomethyl)-5-methyl-3-(phenylmethyl)-, iodide (9CI) (CA INDEX NAME)



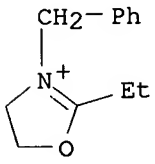
● I^-

L9 ANSWER 39 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB Several 2,3-dialkyl-2-oxazolinium salts were prepared from the reaction of 2-alkyl-2-oxazolines and alkyl bromides. 1H NMR indicated that these salts exist in solution in the form of betaines.
1995:89465 Document Number 122:9920 Synthesis of new 2-oxazolinium salts and their betaine structure. Bansal, R. K.; Jain, C. B.; Gupta, Neelima (Dep. Chemical, University Rajasthan, Jaipur, 302 004, India). Journal of the Indian Chemical Society, 71(4), 203-4 (English) **1994**. CODEN: JICSAH. ISSN: 0019-4522.
IT **159616-46-3P 159616-48-5P 159616-49-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of oxazolinium salts and their betaine structure)
RN 159616-46-3 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



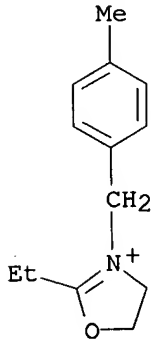
● Br^-

RN 159616-48-5 HCAPLUS
CN Oxazolium, 2-ethyl-4,5-dihydro-3-(phenylmethyl)-, bromide (9CI) (CA INDEX NAME)



● Br^-

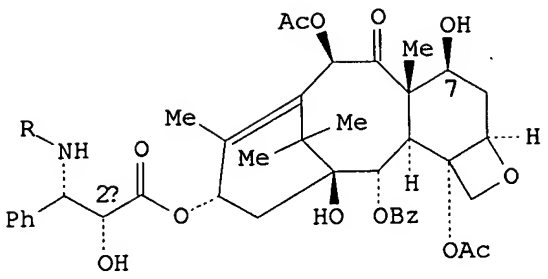
RN 159616-49-6 HCAPLUS
CN Oxazolium, 2-ethyl-4,5-dihydro-3-[(4-methylphenyl)methyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

L9 ANSWER 40 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI

Delacroix



I

AB The natural product cephalomannine, i.e. I [R = (E)-MeCH:CMeCO] (II), can be converted to the important anticancer natural product taxol, i.e. I [R = Bz], by a simple 6-step process. The method can also be applied to mixts. of II and taxol, thus obviating the need for the separation of these closely related compds. The method involves: (1) hydrogenation of the sidechain double bond of II, which occurs quant. and leaves taxol unaffected; (2) O-benzoylation at the C-2'-position of both dihydro-II and taxol (95%); (3) protection of the C-7 hydroxy group of both mols., e.g., as the trichloroethoxycarbonyl derivs. (85%); (4) reaction with oxalyl chloride and then H2O, which converges to the same mol. with R = HO2CCO (65%); (5) reaction with diphenylcarbodiimide, which removes the N-oxalyl group and allows spontaneous migration of the C-2'-benzoyl group to the resultant amino group (50%); and (6) deprotection of C-7, e.g. with Zn and AcOH (47%), to give taxol. In addition, the selection of an acylating reagent other than the benzoyl group allows the preparation of taxol analogs with other N-acyl substituents. Similar methods using amines in place of H2O after treatment with oxalyl chloride also allow preparation of analogs, e.g., I [R = PhNHCOCO].

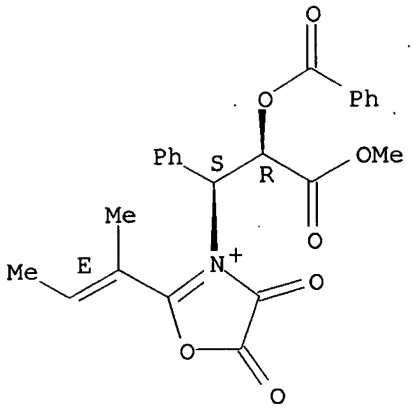
1994:701104 Document Number 121:301104 Method for the conversion of cephalomannine to taxol and for the preparation of N-acyl analogs of taxol. Kingston, David G. I.; Molinero, Anthony A. (Virginia Tech Intellectual Properties, Inc., USA). U.S. US 5319112 A **19940607**, 20 pp. (English). CODEN: USXXAM. APPLICATION: US 1992-931319 19920818.

IT **158948-94-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and Michael reaction of, with methanol)

RN 158948-94-8 HCAPLUS

CN Oxazolium, 3-[2-(benzoyloxy)-3-methoxy-3-oxo-1-phenylpropyl]-4,5-dihydro-2-(1-methyl-1-propenyl)-4,5-dioxo-, chloride, [R-[R*,S*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



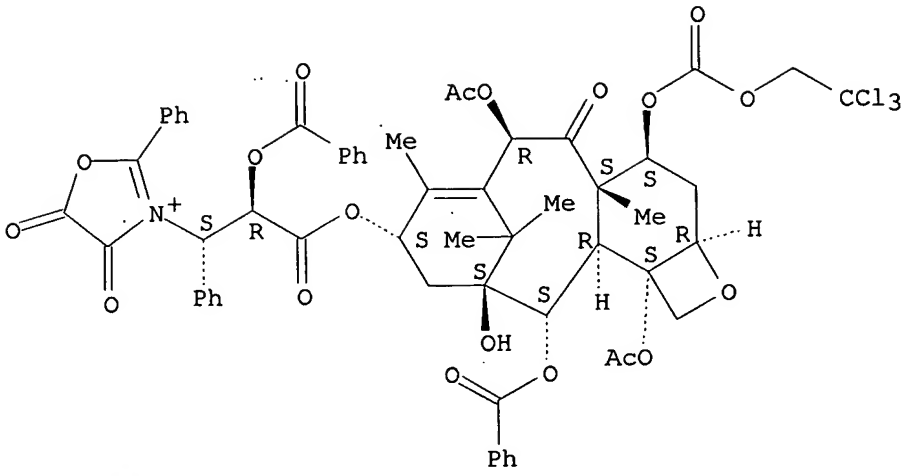
● Cl^-

IT **158948-91-5P 158948-92-6P 159001-29-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

RN 158948-91-5 HCAPLUS

CN Oxazolium, 3-[2-(benzoyloxy)-3-[[6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-4-[[(2,2,2-trichloroethoxy)carbonyl]oxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl]oxy]-3-oxo-1-phenylpropyl]-4,5-dihydro-4,5-dioxo-2-phenyl-, chloride, [2aR-[2aα,4β,4aβ,6β,9.alpha.(1S*,2R*),11α,12α,12aα,12bα]]- (9CI) (CA INDEX NAME)

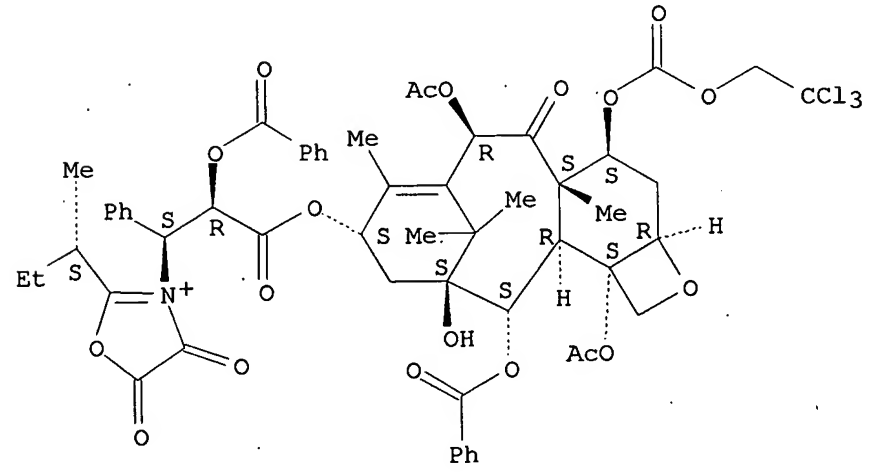
Absolute stereochemistry.



● Cl^-

RN 158948-92-6 HCAPLUS
CN Oxazolium, 3-[2-(benzoyloxy)-3-[[6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-4-[[(2,2,2-trichloroethoxy)carbonyl]oxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl]oxy]-3-oxo-1-phenylpropyl]-4,5-dihydro-2-(1-methylpropyl)-4,5-dioxo-, chloride, [2aR-[2aα,4β,4aβ,6β,9α[1S*(S*),2R*],11α,12.alpha.,12aα,12bα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Cl^-

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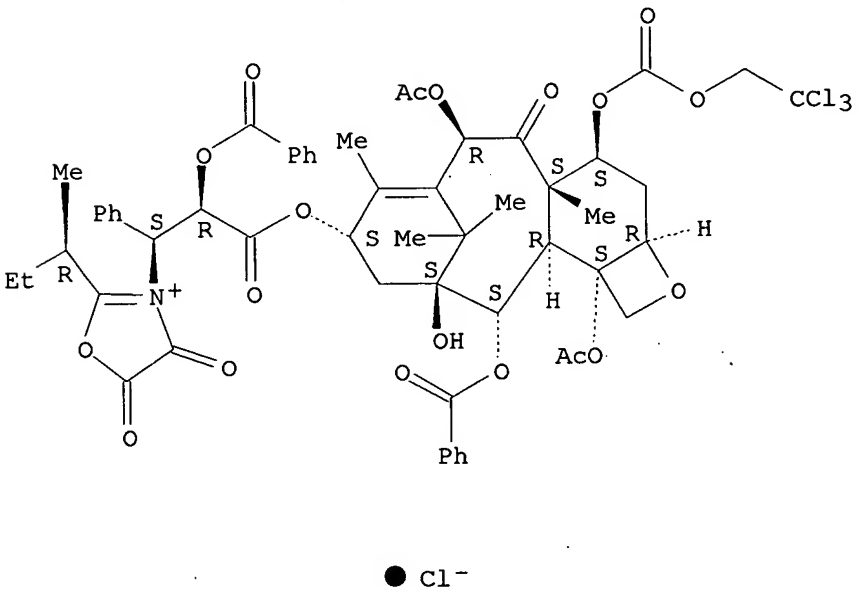
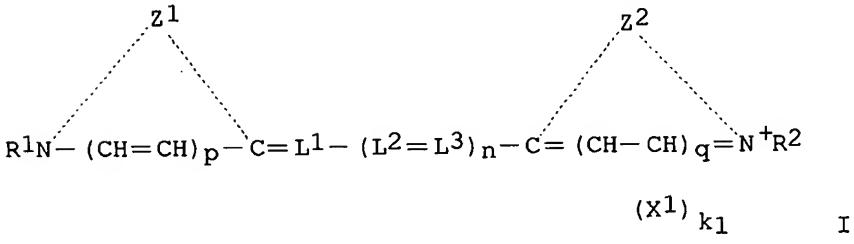
RN 159001-29-3 HCAPLUS
CN Oxazolium, 3-[2-(benzoyloxy)-3-[[6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-4-[[(2,2,2-trichloroethoxy)carbonyl]oxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl]oxy]-3-oxo-1-phenylpropyl]-4,5-dihydro-2-(1-methylpropyl)-4,5-dioxo-, chloride, [2aR-[2aα,4β,4aβ,6β,9α[1S*(R*),2R*],11α,12.alpha.,12aα,12bα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Cl^-

L9 ANSWER 41 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB One or more Ag halide photog. emulsion layers of the title material contain ≥1 of I [R1 = -(CH2)r-CONHSO2-R3, -(CH2)s-SO2NHCO-R4,

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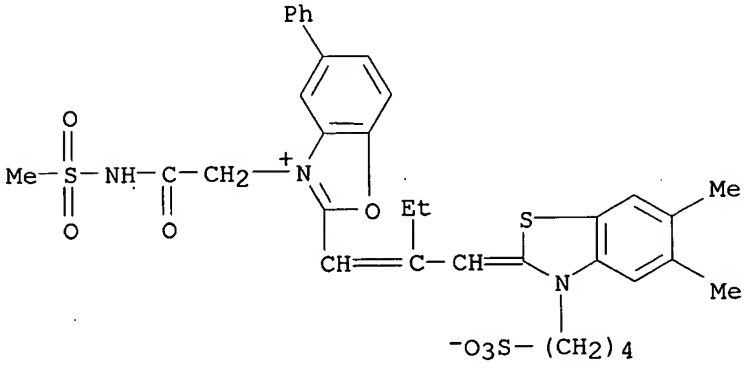
-(CH2)t-CONHCO-R5, -(CH2)u-SO2NHSO2-R6; R3-6 = alkyl, alkoxy, amino; r, s, t, u = 1-5; R2 = same as R1, alkyl; Z1, Z2 = non-metal atoms forming 5- or 6-membered ring; L1-3 = methine; n1 = 0-2; X1 = anion; k1 = number to neutralize charge; p, q = 0, 1] and ≥1 of R7NA1NA2G1R8 [R7 = aliphatic, aromatic; R8, R9 = H, alkyl, aryl, alkoxy, aryloxy, amino, hydrazino;
G1 = CO, SO2, SO, POR9, COCO, thiocarbonyl, iminomethylene; A1-2 = H, alkylsulfonyl, arylsulfonyl, acyl]. The Z1 and Z2 may be non-metal atoms forming benzothiazole, benzoselenazole, or quinoline nucleus.

1994:641607 Document Number 121:241607 Silver halide photographic material with lesser residual color and improved sensitivity. Ikegawa, Akihiko; Mihara, Juji (Fuji Photo Film Co Ltd, Japan). Japan Kokai Tokkyo Koho JP 06035102 A2 **19940210** Heisei, 28 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1992-193839 19920721.

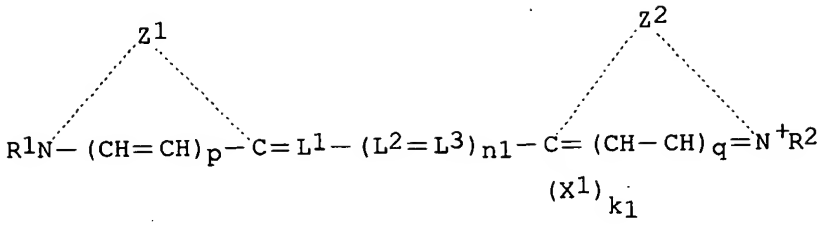
IT **158463-79-7**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(silver halide photog. material with lesser residual color and improved sensitivity)

RN 158463-79-7 HCAPLUS

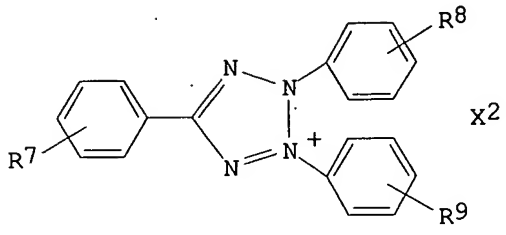
CN Benzoxazolium, 2-[2-[[5,6-dimethyl-3-(4-sulfobutyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-5-phenyl-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 42 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II

AB One or more Ag halide photog. emulsion layers of the title material contain ≥1 of I [R1 = -(CH2)r-CONHSO2-R3, -(CH2)s-SO2NHCO-R4, -(CH2)t-CONHCO-R5, -(CH2)u-SO2NHSO2-R6; R3-6 = alkyl, alkoxy, amino; r, s, t, u = 1-5; R2 = same as R1, alkyl; Z1, Z2 = non-metal atoms forming 5- or 6-membered ring; L1-3 = methine; n1 = 0-2; X1 = anion; k1 = number to neutralize charge; p, q = 0, 1] and ≥1 of II [R7-9 = H, substituent; X2 = anion]. The above Z1 and Z2 may be non-metal atoms forming thiazole, benzothiazole, naphthothiazole, oxazole, benzooxazole, naphthooxazole, benzoimidazole, naphthoimidazole, or quinoline nucleus. The above R7-9 may be alkyl, amino, acylamino, hydroxyl, alkoxy, acyloxy, halo, carbamoyl, acylthio, alkoxycarbonyl, carboxyl, acyl, cyano, nitro, mercapto, sulfoxy, or aminosulfoxy.

1994:641606 Document Number 121:241606 Silver halide photographic material with lesser residual color and improved sensitivity. Ikegawa, Akihiko; Mihara, Juji (Fuji Photo Film Co Ltd, Japan). Japan Kokai Tokkyo Koho JP 06035101 A2 **19940210** Heisei, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-193838 19920721.

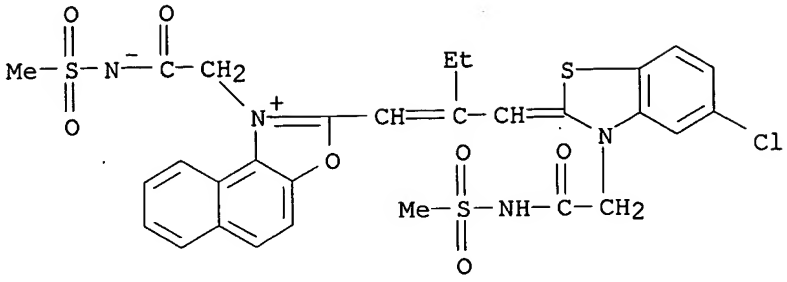
IT **158463-78-6**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(silver halide photog. material with lesser residual color and improved sensitivity)

RN 158463-78-6 HCAPLUS

CN Naphth[1,2-d]oxazolium, 2-[2-[[5-chloro-3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-1-[2-[(methylsulfonyl)amino]-2-oxoethyl]-, inner salt, compd. with 1,4-diazabicyclo[2.2.2]octane (1:1) (9CI) (CA INDEX NAME)

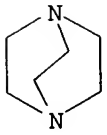
CM 1

CRN 158463-77-5
CMF C29 H27 Cl N4 O7 S3

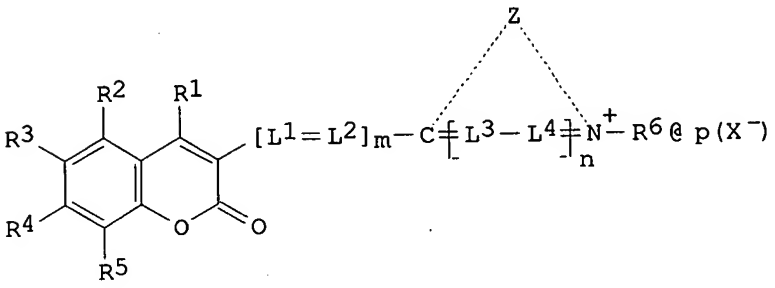


CM 2

CRN 280-57-9
CMF C6 H12 N2



L9 ANSWER 43 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB The title material comprises ≥1 hydrophilic colloidal layer containing a dye I [Z = atoms necessary to form 5- or 6-membered N-containing heterocyclyl ring; R1-R5 = H, monovalent group; R3-R4 and/or R4-R5 may combine to form ring; R6 = alkyl aryl alkenyl; L1-L4 = methine group; X- = anion; m = 1-2; n = 0, 1; p = 0, 0.5, 1;]. The dye can be quickly decolored during development and can provide images with excellent sharpness and less residual color.

1994:148785 Document Number 120:148785 Silver halide photographic material. Ohno, Shigeru (Fuji Photo Film Co., Ltd., Japan). U.S. US 5223382 A **19930629**, 10 pp. (English). CODEN: USXXAM. APPLICATION: US 1992-983701 19921201. PRIORITY: JP 1991-318201 19911202.

IT **153411-17-7**
RL: USES (Uses)

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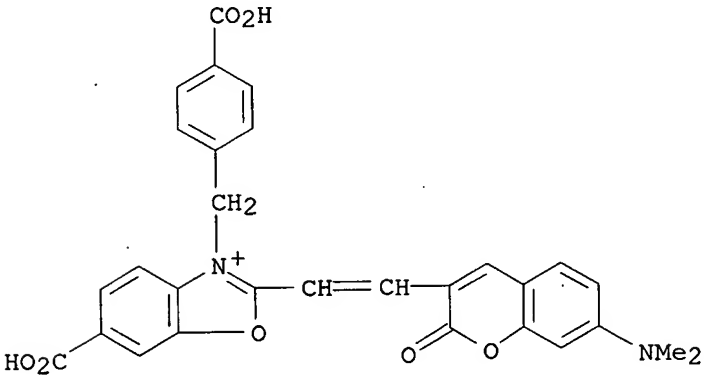
(photog. films containing)
RN 153411-17-7 HCAPLUS
CN Benzoxazolium, 6-carboxy-3-[(4-carboxyphenyl)methyl]-2-[2-[7-(dimethylamino)-2-oxo-2H-1-benzopyran-3-yl]ethenyl]-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

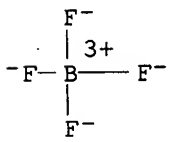
CM 1

CRN 153411-16-6
CMF C29 H23 N2 O7



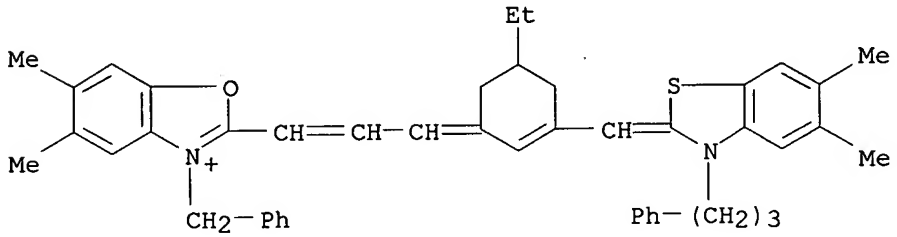
CM 2

CRN 14874-70-5
CMF B F4
CCI CCS

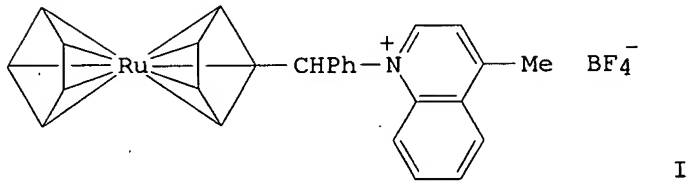


L9 ANSWER 44 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
AB The title Ag halide emulsion comprises at least a methine compound (MET)m[QA]n [MET = atomic group having methine compound structure; Q = bivalent bonding moiety containing C, N, S, and/or O; A = aromatic multiring group having ≥5 atoms; m = integer higher than 1; n = integer higher than 2].
1994:19156 Document Number 120:19156 Silver halide emulsion having high sensitivity and storage stability. Hioki, Takanori (Fuji Photo Film Co Ltd, Japan). Japan Kokai Tokkyo Koho JP 05045774 A2 **19930226** Heisei, 61 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-228625 19910814.
IT **151407-31-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. emulsion containing, for high sensitivity and storage stability)

RN 151407-31-7 HCAPLUS
CN Benzoxazolium, 2-[3-[3-[[5,6-dimethyl-3-(3-phenylpropyl)-2(3H)-benzothiazolylidene]methyl]-5-ethyl-2-cyclohexen-1-ylidene]-1-propenyl]-5,6-dimethyl-3-(phenylmethyl)-, iodide (9CI) (CA INDEX NAME)



L9 ANSWER 45 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB Reaction of McCHROH (Mc = ruthenocenyl, osmocenyl; R = Me, Ph) with N-containing heterocycles (pyridine, 2- and 4-methylpyridine, 4-methylquinoline, 2-methylbenzoxazole, 2-methylbenzothiazole), azomethines R1CH:NPh (R1 = Ph, ferrocenyl), Ph3P, or Me2S in a 2-phase CH2Cl2-aqueous HX (X = BF4, ClO4) system gave the corresponding organometallic ammonium (e.g., I), phosphonium, or sulfonium salts. Reaction of McCHRN+R23 X- or McCHRS+Me2 X- with NaN3, NaSO2Ph, or Ph3P gave McCHRN3, McCHRSO2Ph, or McCHRP+Ph3 X-, resp. Treating McCHRP+Ph3 X- with BuLi in THF and then with PhCHO gave 42-56% McCR:CHPh.

1993:102219 Document Number 118:102219 Synthesis and reactivity of α-ruthenocenyl- and osmocenylalkylated onium compounds. Boev, V. I. (Lipetsk. Gos. University, Lipetsk, Russia). Zhurnal Organicheskoi Khimii, 28(4), 770-8 (Russian) **1992**. CODEN: ZORKAE. ISSN: 0514-7492. OTHER SOURCES: CASREACT 118:102219.

IT **145897-60-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and Wittig reaction of)

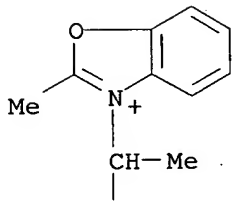
RN 145897-60-5 HCAPLUS

CN Benzoxazolium, 2-methyl-3-(1-ruthenocenylethyl)-, perchlorate (9CI) (CA INDEX NAME)

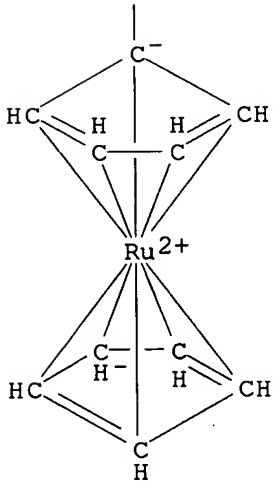
CM 1

CRN 145897-59-2
CMF C20 H20 N O Ru
CCI CCS

PAGE 1-A

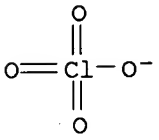


PAGE 2-A



CM 2

CRN 14797-73-0
CMF Cl O4



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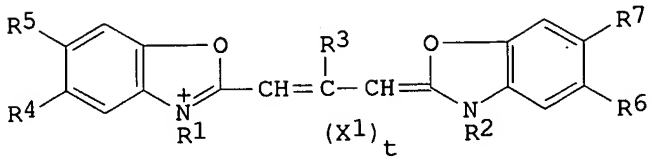
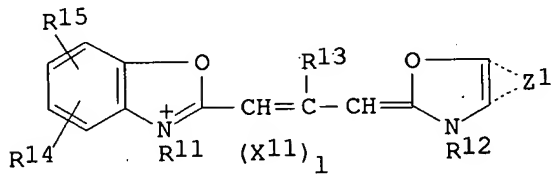


I



II

AB In the title material comprising a support having thereon photog. layers which include one or more photosensitive Ag halide emulsion layers, Ag halide grains in at least one of the Ag halide emulsion layers are spectrally sensitized by at least one sensitizing dye represented by general structure I and at least one sensitizing dye represented by general structure II. For I and II, R1, R2, R11, R12 = alkyl, alkenyl; R3, R13 = H, aryl, alkyl; R4, R6, R7, R14, R15 = H, alkyl, alkoxy, halo, etc.; R5 = alkyl having at least 3 carbon atoms, alkoxy having at least 3 carbon atoms; Z1 = nonmetallic atoms for forming a benzene or naphthalene ring; X1, X11 = an anion for charge balance; t, l = ion number for charge balancing; for inner salt, t, l = 0. The title material shows high sensitivity and good storage stability.

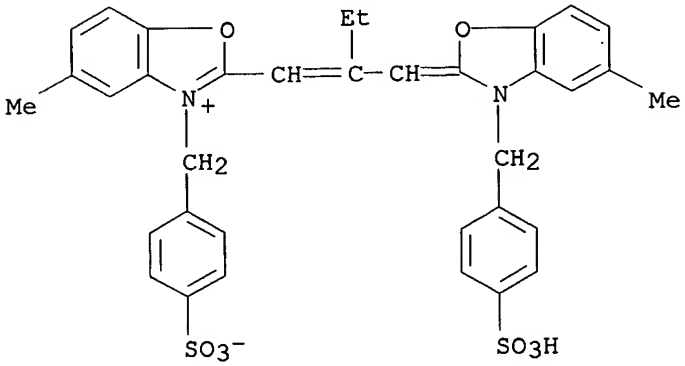
1992:245204 Document Number 116:245204 Silver halide photographic material containing sensitizing dyes. Kagawa, Nobuaki; Tanaka, Mari; Okusa, Hiroshi (Konica Co., Japan). Japan Kokai Tokkyo Koho JP 04027936 A2 **19920130** Heisei, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-132619 19900524.

IT **141420-40-8**
RL: USES (Uses)
(photog. sensitizing dye)

RN 141420-40-8 HCAPLUS
CN Benzoxazolium, 5-methyl-2-[2-[[5-methyl-3-[(4-sulfophenyl)methyl]-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-[(4-sulfophenyl)methyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

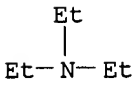
CM 1

CRN 141420-39-5
CMF C35 H32 N2 O8 S2



CM 2

CRN 121-44-8
CMF C6 H15 N



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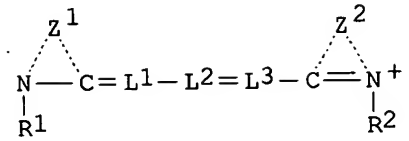
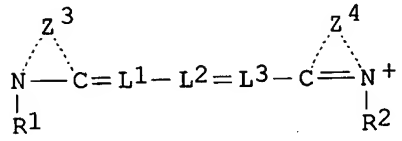
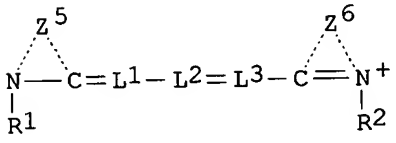


I



II



III

AB A Ag halide photog. material is described in which ≥1 Ag halide emulsion layer coated onto a base support is subjected to supersensitization by the combination of ≥1 sym. carbocyanine dye (I) having 2 sym. heterocyclic structures, ≥1 sym. carbocyanine dye (II) also having 2 sym. heterocyclic structures, and ≥1 asym. carbocyanine dye (III) which has either 1 of the 2 heterocyclic structures shown in I and either 1 of the 2 heterocyclic structures shown in II. In I, II, and III Z1 and Z2 each represents the nonmetallic atomic group necessary to form the same benzoxazole, benzimidazole, naphtho[2,3-α]oxazole, or benzothiazole ring nucleus; Z3 and Z4 each represents the nonmetallic atomic group necessary to form the same naphthoxazole, naphthoimidazole, or naphthothiazole ring nucleus; Z5 has the same as meaning as defined for Z1 or Z2 or it represents Z1 or Z2 that has a substituent defined by a sterimol parameter (L/B1) of ≤2.2; Z6 has the same meaning as defined for Z3 or Z4 or it represents Z3 or Z4 that has a substituent defined by a L/B1 of ≤2.2; R1 and R2 which may be the same or different each represents an alkyl or a substituted alkyl group; L1, L2 and L3 each represents a methine or a substituted methine group; X1 is a counter ion residue; and n1 is 0 or 1. The photog. material has high spectral sensitivity and good storage stability since it is resistant to desensitization due to desorption of spectral sensitizers from Ag halide.

1992:184464 Document Number 116:184464 Silver halide photographic material. Asano, Satomi; Okusa, Hiroshi; Kagawa, Nobuaki; Ohtani, Hirofumi; Matsuzaka, Syoji (Konica Co., Japan). Eur. Pat. Appl. EP 367540 A2 **19900509**, 68 pp. DESIGNATED STATES: R: DE, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1989-311197 19891030. PRIORITY: JP 1988-278204 19881101; JP 1988-318070 19881215; JP 1988-318071 19881215.

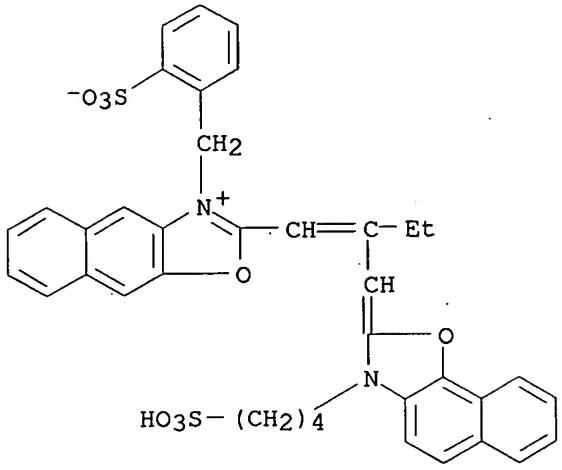
IT **130682-85-8**
RL: USES (Uses)
(cyanine dye combination containing, as photog. supersensitizer)

RN 130682-85-8 HCAPLUS

CN Naphth[2,3-d]oxazolium, 2-[2-[[3-(4-sulfobutyl)naphth[2,1-d]oxazol-2(3H)-ylidene]methyl]-1-butenyl]-3-[(2-sulfophenyl)methyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

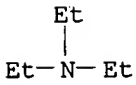
CM 1

CRN 130682-84-7
CMF C38 H34 N2 O8 S2

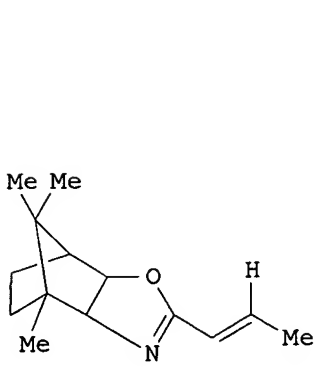


CM 2

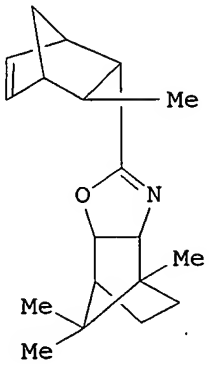
CRN 121-44-8
CMF C6 H15 N



L9 ANSWER 48 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II

Delacroix

AB α,β-Unsatd. oxazolines, activated with (CF3CO)2O, proved to be very powerful dienophiles toward various dienes including Danishefsky-type diene. The reactions were performed generally between -100° and -20 ° and the diastereoselectivity is usually >90%. Thus, I and cyclopentadiene gave 76% cycloadduct II.

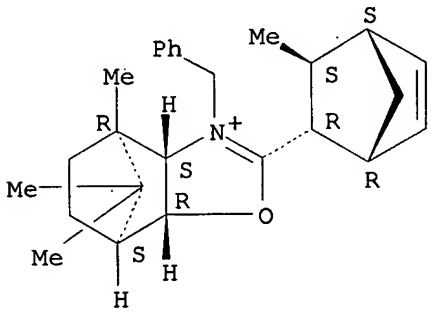
1990:532056 Document Number 113:132056 α,β-Unsaturated oxazolines, a powerful tool in asymmetric Diels-Alder cycloadditions. Kouklovsky, Cyrille; Pouilhes, Annie; Langlois, Yves (Inst. Chim. Subst. Nat., CNRS, Gif-sur-Yvette, 91198, Fr.). Journal of the American Chemical Society, 112(18), 6672-9 (English) **1990**. CODEN: JACSAT. ISSN: 0002-7863. OTHER SOURCES: CASREACT 113:132056.

IT **129064-54-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ring cleavage of)

RN 129064-54-6 HCAPLUS

CN 4,7-Methanobenzoxazolium, 3a,4,5,6,7,7a-hexahydro-4,8,8-trimethyl-2-(3-methylbicyclo[2.2.1]hept-5-en-2-yl)-3-(phenylmethyl)-, bromide, [3aS-[2(1S*,2S*,3R*,4R*),3aα,4β,7β,7aα]]- (9CI) (CA INDEX NAME)

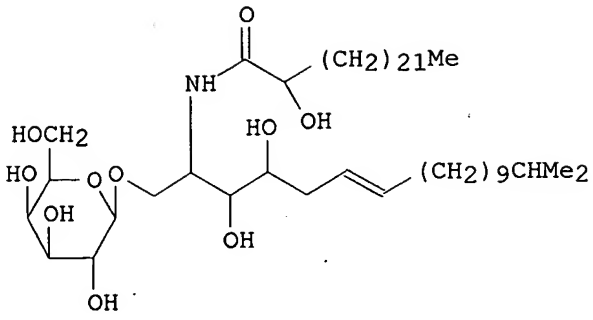
Absolute stereochemistry.



● Br^-

L9 ANSWER 49 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

GI



I

AB In a study on the isolation and structure elucidation of biol. active compds. from marine invertebrates, 4 diastereomers of C16-phytosphingosine, acanthacerebroside A, and D-galactosylceramide (I) were prepared

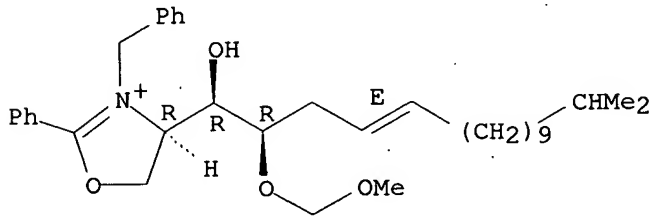
1990:217387 Document Number 112:217387 Stereochemistry of acanthacerebroside A and a related marine sphingoglycolipid. Sugiyama, S.; Honda, M.; Komori, T. (Faculty Pharm. Sci., Kyushu University, Fukuoka, Japan). Tennen Yuki Kagobutsu Toronkai Koen Yoshishu, 31st, 22-9 (Japanese) **1989**. CODEN: TYKYDS.

IT **127061-77-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deprotection of)

RN 127061-77-2 HCAPLUS

CN Oxazolium, 4,5-dihydro-4-[1-hydroxy-2-(methoxymethoxy)-15-methyl-4-hexadecenyl]-2-phenyl-3-(phenylmethyl)-, [4R-[4R*(1R*,2R*,4E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

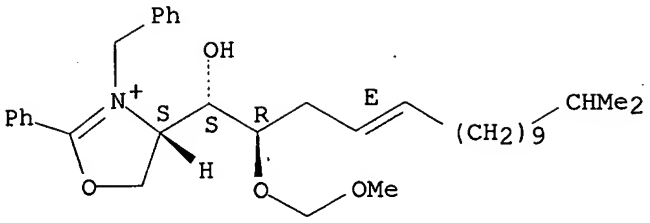


IT **126960-26-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reductive ring cleavage of)

RN 126960-26-7 HCAPLUS

CN Oxazolium, 4,5-dihydro-4-[1-hydroxy-2-(methoxymethoxy)-15-methyl-4-hexadecenyl]-2-phenyl-3-(phenylmethyl)-, [4S-[4R*(1R*,2S*,4E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L9 ANSWER 50 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

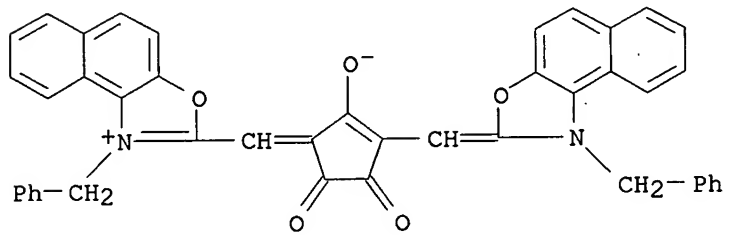
AB An E-DRAW type optical recording medium is characterized in that (1) the recording medium contains a mixture of heat-sensitive materials, which become transparent or opaque when the medium is heated (and cooled) to a specified temperature, and a light-absorbing material containing ≥1 croconic methine derivative and (2) displaying or reading out information is effected by heating a specified area of the recording medium to a specified temperature The optical recording medium may be a heat mode type.

1988:66027 Document Number 108:66027 Optical information recording medium. Oguchi, Yoshihiro; Takasu, Yoshio (Canon K. K., Japan). Japan Kokai Tokkyo Koho JP 62132688 A2 **19870615** Showa, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-272808 19851204.

IT **112669-44-0**
RL: USES (Uses)
(optical recording medium containing heat-sensitive material and, as light-absorbing material)

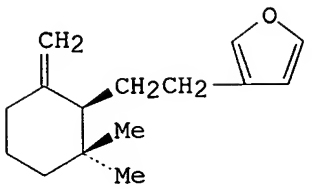
RN 112669-44-0 HCAPLUS

CN Naphth[1,2-d]oxazolium, 2-[[2-hydroxy-4,5-dioxo-3-[[1-(phenylmethyl)naphth[1,2-d]oxazol-2(1H)-ylidene]methyl]-2-cyclopenten-1-ylidene]methyl]-1-(phenylmethyl)-, inner salt (9CI) (CA INDEX NAME)

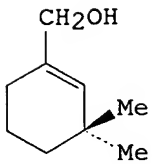


L9 ANSWER 51 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

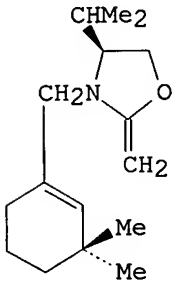
GI



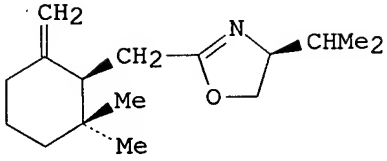
I



II



III



IV

AB The C(1')-(S)-configuration of (+)-dihydropallescensin-2 (I) was confirmed by preparation from alc. II with the key reaction being a chiron-mediated asym. aza-Claisen rearrangement of tetrahydrooxazole III to oxazoline IV.

1988:38144 Document Number 108:38144 Asymmetric aza-Claisen rearrangement: synthesis of (+)-dihydropallescensin-2 [(+)-penlanpallescensin]. Kurth, Mark J.; Soares, Christopher J. (Dep. Chemical, University California, Davis, Davis, CA, 95616, USA). Tetrahedron Letters, 28(10), 1031-4 (English) **1987**. CODEN: TELEAY. ISSN: 0040-4039. OTHER SOURCES: CASREACT 108:38144.

IT **111931-29-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and elimination of methanesulfonic acid from)

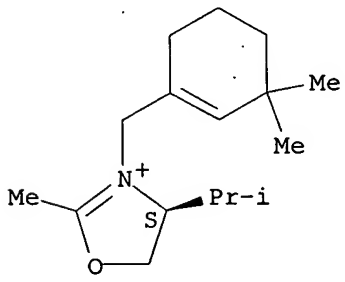
RN 111931-29-4 HCAPLUS

CN Oxazolium, 3-[(3,3-dimethyl-1-cyclohexen-1-yl)methyl]-4,5-dihydro-2-methyl-4-(1-methylethyl)-, (S)-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 99440-08-1
CMF C16 H28 N O

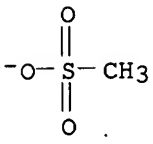
Absolute stereochemistry.



Delacroix

CM 2

CRN 16053-58-0
CMF C H3 O3 S



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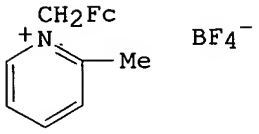
GI



I

AB Fifteen title compds., e.g., (I, Fc = ferrocenyl) were prepared in 66-100% yields by treating FcCHROH (R = H, Me) with the base in the 2 phase system CH2Cl2-aqueous HX (X = BF4, ClO4).

1987:50377 Document Number 106:50377 Synthesis and properties of onium N-ferrocenyl alkylates of heterocyclic bases. Boev, V. I.; Lyubich, M. S.; Larina, S. M. (Vses. Nauchno-Issled. Proektn. Inst. Khim.-Fotogr. Prom., Moscow, USSR). Zhurnal Organicheskoi Khimii, 21(10), 2195-200 (Russian) **1985**. CODEN: ZORKAE. ISSN: 0514-7492. OTHER SOURCES: CASREACT 106:50377.

IT **88473-00-1P 88482-95-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

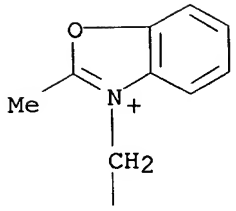
RN 88473-00-1 HCAPLUS

CN Benzoxazolium, 3-(ferrocenylmethyl)-2-methyl-, perchlorate (9CI) (CA INDEX NAME)

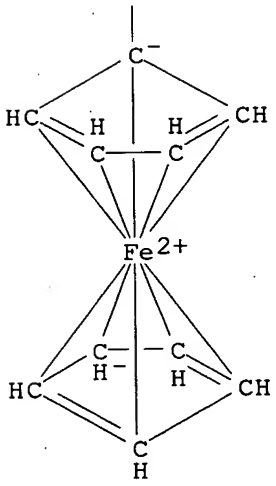
CM 1

CRN 88472-99-5
CMF C19 H18 Fe N O
CCI CCS

PAGE 1-A

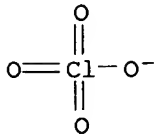


PAGE 2-A



CM 2

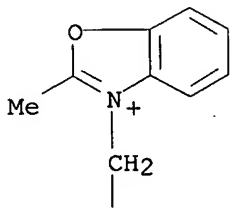
CRN 14797-73-0
CMF Cl O4

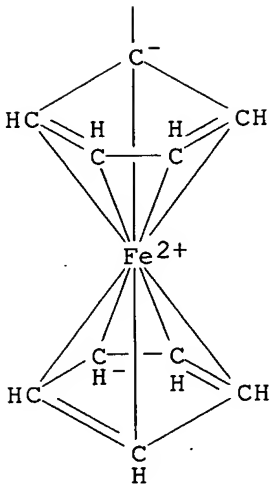


RN 88482-95-5 HCAPLUS
CN Benzoxazolium, 3-(ferrocenylmethyl)-2-methyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

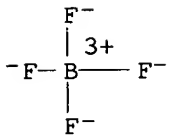
CRN 88472-99-5
CMF C19 H18 Fe N O
CCI CCS



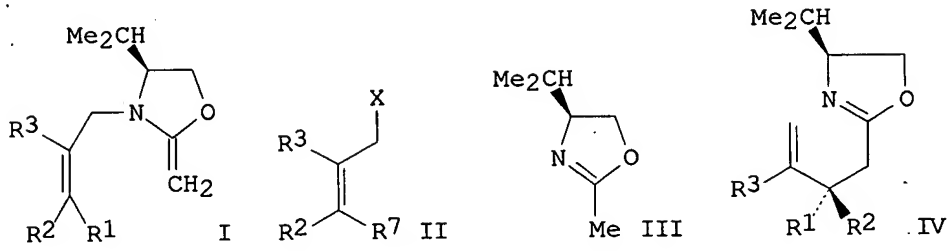


CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



L9 ANSWER 53 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



AB Asym. C-C bond formation via the diastereoselective aza-Claisen rearrangement of oxazolidines [I; R1,R2 = H, Me, Me2CH, PhCH2OCH2, Me2C:CHCH2CH2; R3 = H, Me; or R2R3 = (CH2)3, (CH2)4, Me2C(CH2)3] is described. The starting materials, allylic alkylating agent II (X = tosyloxy, mesyloxy, Br) and optically pure oxazoline III, are easily prepared and, in a one-pot procedure, generate rearranged oxazolines IV in

52-94% diastereomeric excess. The overall chemical yields for III → IV range from 51-78%. The aza-Claisen rearrangement (I → IV) proceeds with excellent N,O-acetal face selectivity and with good to excellent chair selectivity. Hydrolysis of rearranged oxazoline IV completes an enantioselective synthesis of 3-substituted 4-pentenoic acids.

1986:186336 Document Number 104:186336 Enantioselective preparation of 3-substituted 4-pentenoic acids via the Claisen rearrangement. Kurth, Mark J.; Decker, Owen H. W. (Dep. Chemical, University California, Davis, CA, 95619, USA). Journal of Organic Chemistry, 50(26), 5769-75 (English) **1985**. CODEN: JOCEAH. ISSN: 0022-3263. OTHER SOURCES: CASREACT 104:186336.

IT **99440-07-0P 99440-09-2P 99440-11-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and rearrangement of)

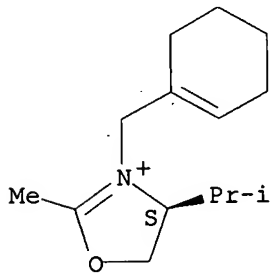
RN 99440-07-0 HCAPLUS

CN Oxazolium, 3-(1-cyclohexen-1-ylmethyl)-4,5-dihydro-2-methyl-4-(1-methylethyl)-, (S)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

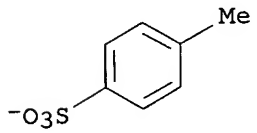
CRN 99440-06-9
CMF C14 H24 N O

Absolute stereochemistry.



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S



RN 99440-09-2 HCAPLUS

CN Oxazolium, 3-[(3,3-dimethyl-1-cyclohexen-1-yl)methyl]-4,5-dihydro-2-methyl-4-(1-methylethyl)-, (S)-, salt with 4-methylbenzenesulfonic acid (1:1)

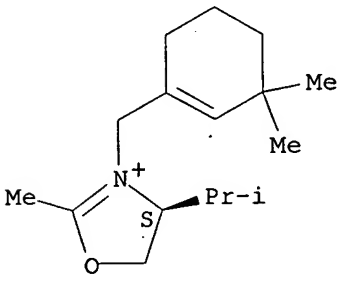
Delacroix

(9CI) (CA INDEX NAME)

CM 1

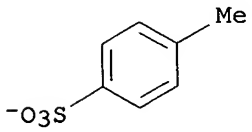
CRN 99440-08-1
CMF C16 H28 N O

Absolute stereochemistry.



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

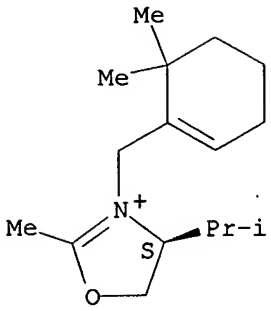


RN 99440-11-6 HCAPLUS
CN Oxazolium, 3-[(6,6-dimethyl-1-cyclohexen-1-yl)methyl]-4,5-dihydro-2-methyl-4-(1-methylethyl)-, (S)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

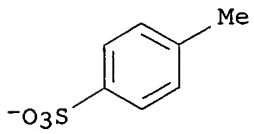
CRN 99440-10-5
CMF C16 H28 N O

Absolute stereochemistry.



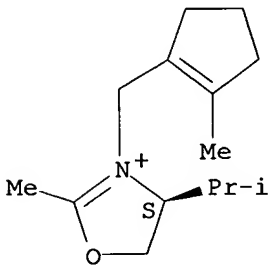
CM 2

CRN 16722-51-3
CMF C7 H7 O3 S



IT **99440-12-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 99440-12-7 HCAPLUS
CN Oxazolium, 4,5-dihydro-2-methyl-3-[(2-methyl-1-cyclopenten-1-yl)methyl]-4-(1-methylethyl)-, bromide, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Br^-

L9 ANSWER 54 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB Ag halide photog. emulsions contain ≥1 sensitizer dye selected from I, II, and III (A, B, C = 5- or 6-membered heterocycle; R, R2 =

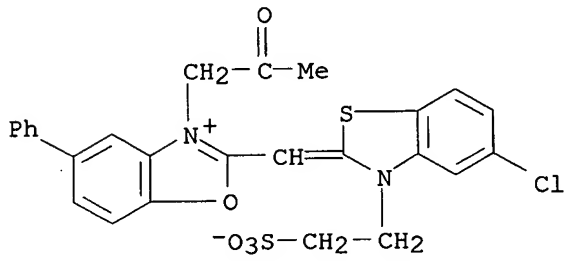
(CH2)sCOMe, IV; R1 = alkyl, (CH2)sCOMe, IV; Z, Z1, Z2, Z3, Z4 = (un)substituted methylne, R3 = halo, CN, alkoxycarboxyl, carbamoyl, sulfamoyl, alkyl, alkoxy, acyl; m, p = 1-4; n, r = 0, 1; q = 0-3; s, t = 2-5; D = heterocyclyl; X- = anion]. The sensitizer dyes show good sensitizing power and cause very little stain, and when a sensitizer dye I is used together with ≥1 of II and III, the effects are even more significant.

1986:177616 Document Number 104:177616 Silver halide photographic emulsions. Okazaki, Masaki; Yamamuro, Kyohiko; Ikeda, Tadashi (Fuji Photo Film Co., Ltd., Japan). Japan Kokai Tokkyo Koho JP 60205442 A2 **19851017** Showa, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-61666 19840329.

IT **101899-92-7**
RL: USES (Uses)
(photog. sensitizer dye)

RN 101899-92-7 HCAPLUS

CN Benzoxazolium, 2-[[5-chloro-3-(2-sulfoethyl)-2(3H)-benzothiazolylidene]methyl]-3-(2-oxopropyl)-5-phenyl-, inner salt (9CI) (CA INDEX NAME)



L9 ANSWER 55 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Twenty-four ferrocenyl onium compds., e.g. FcCHRP+Ph3 X-, FcCHRS+Me2 X- (R = H, Me; X = BF4, ClO4; Fc = ferrocenyl), were prepared in 41-100% yields by ferrocenylalkylation with FcCHROH of the corresponding neutral compds., e.g. Ph3P, Me2S, in a 2-phase system of CH2Cl2 and aqueous HX. Treating the onium compds. with NaN3 and NaCN gave FcCHRR1 (R1 = N3, CN).

1984:611392 Document Number 101:211392 α-Ferrocenylalkylation - method for the preparation of onium compounds, some conversions of reaction products. Boev, V. I.; Dombrovskii, A. V. (USSR). Zhurnal Obshchei Khimii, 54(5), 1192-7 (Russian) **1984**. CODEN: ZOKHA4. ISSN: 0044-460X.

IT **88482-95-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

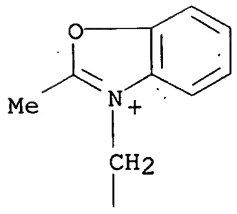
RN 88482-95-5 HCAPLUS

CN Benzoxazolium, 3-(ferrocenylmethyl)-2-methyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

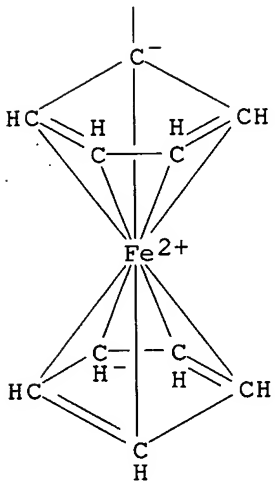
CM 1

CRN 88472-99-5
CMF C19 H18 Fe N O
CCI CCS

PAGE 1-A

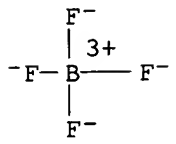


PAGE 2-A



CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



L9 ANSWER 56 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB FcCHROH (Fc = ferrocenyl; R = H, Me) reacted with 11 N-containing heterocycles, FcCH:NPh, Ph3P and R12S (R1 = Me, PhCH2) in CH2Cl2 containing HBF4 or HClO4 to give 23 title compds. in 50-100% yield. Analogous reaction of FcCH2NMe2 with N-(2-bromoethyl)pyridinium bromide gave 83% FcCH2N+Me2CH2CH2X 2 Br- (X = pyridinium). These compds. have bactericidal and fungicidal activity, especially vs. Staphylococcus and Candida species.

1984:51788 Document Number 100:51788 Synthesis and antimicrobial activity of onium compounds containing an α-ferrocenyl radical. Boev, V. I.; Pak, A. L.; Perepichko, M. P.; Volyanskii, Yu. L. (Novokuz. Inst. Usoversh. Vrachei, Novokuznetsk, USSR). Khimiko-Farmatsevticheskii Zhurnal, 17(10), 1197-201 (Russian) **1983**. CODEN: KHFZAN. ISSN: 0023-1134.

IT **88473-00-1P 88482-95-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and antimicrobial activity of)

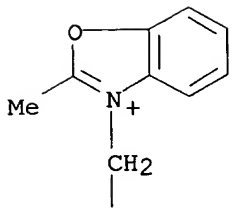
RN 88473-00-1 HCAPLUS

CN Benzoxazolium, 3-(ferrocenylmethyl)-2-methyl-, perchlorate (9CI) (CA INDEX NAME)

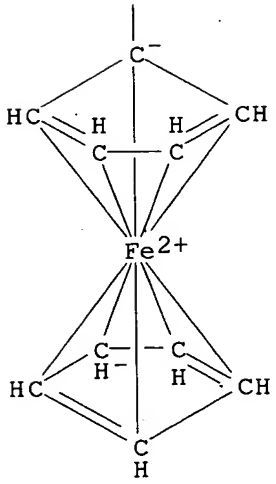
CM 1

CRN 88472-99-5
CMF C19 H18 Fe N O
CCI CCS

PAGE 1-A

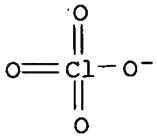


PAGE 2-A



CM 2

CRN 14797-73-0
CMF Cl O4

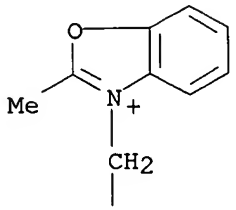


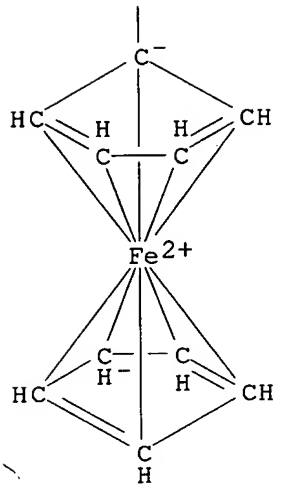
RN 88482-95-5 HCAPLUS
CN Benzoxazolium, 3-(ferrocenylmethyl)-2-methyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 88472-99-5
CMF C19 H18 Fe N O
CCI CCS

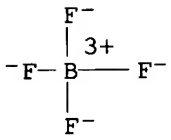
PAGE 1-A



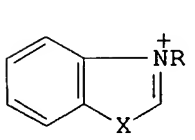


CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



L9 ANSWER 57 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



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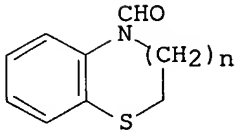
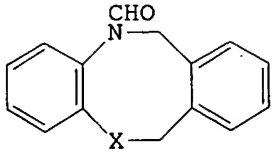


II



III

AB The preparation of 6-, 7- and 8-membered heterocycles by base-induced ring expansion of quaternized benzothiazolinium, -oxazolium and -selenazolium salts is described. Thus, treatment of the quaternized heterocycle I (X =

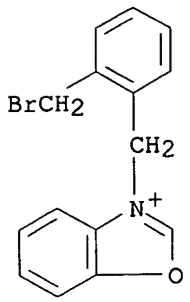
S, R = CH2CH2Cl) in H2O-C2HCl3 with NaOH at 0-40° gave benzothiazine II (n = 1). Similarly, I [X = S, R = (CH2)3Cl] gave the benzothiazepine II (n = 2), and I (X = O, Se; R = CH2C6H4CH2Br-2) gave the dibenzoxazocine and -selenazocine III (X = O, Se), resp.

1981:103319 Document Number 94:103319 A novel base-induced ring expansion of quaternized heterocycles. Federsel, Hans Juergen; Bergman, Jan (Dep. Organic Chemical, R. Inst. Technol., Stockholm, S-100 44, Swed.). Tetrahedron Letters, 21(25), 2429-32 (English) **1980**. CODEN: TELEAY. ISSN: 0040-4039. OTHER SOURCES: CASREACT 94:103319.

IT **76801-02-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ring expansion of, base-catalyzed)

RN 76801-02-0 HCAPLUS

CN Benzoxazolium, 3-[[2-(bromomethyl)phenyl]methyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

L9 ANSWER 58 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB N-Acyl salts of pyridine, quinoline, isoquinoline, benzo[f]quinoline, and benzoxazole were prepared by reaction of the heterocyclic base with an acid chloride and SbCl5. Elec. conductivity data for 2-(diphenylcarbamoyl)isoquinolin
ium chloride in PhNO2 yielded a dissociation constant of 6.59 + 10-3 for this salt. ESR results indicated that N-acylpyridinium and N-acylbenzopyridinium chlorides form charge-transfer complexes which decompose to radicals. Some electronic structures were calculated

1981:14923 Document Number 94:14923 Stable salts of N-acyl heteroaromatic cations. Sheinkman, A. K.; Zherebchenko, V. I.; Tokarev, A. K. (Dnepropetr. Inzh.-Stroit. Inst., Dnepropetrovsk, USSR). Zhurnal Organicheskoi Khimii, 16(7), 1536-45 (Russian) **1980**. CODEN: ZORKAE. ISSN: 0514-7492.

IT **69164-90-5P 69164-92-7P 69164-94-9P**
69164-96-1P 75967-49-6P 75967-53-2P
75967-55-4P 75967-57-6P 75967-59-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

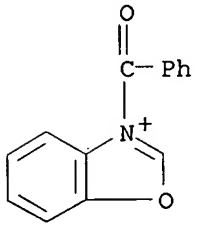
RN 69164-90-5 HCAPLUS

CN Benzoxazolium, 3-benzoyl-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA

INDEX NAME)

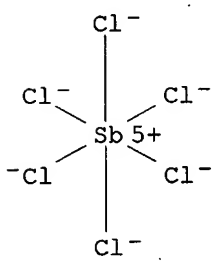
CM 1

CRN 69164-89-2
CMF C14 H10 N O2



CM 2

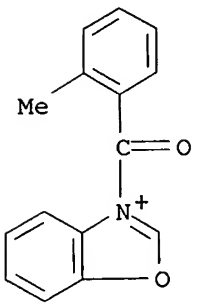
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 69164-92-7 HCAPLUS
CN Benzoxazolium, 3-(2-methylbenzoyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

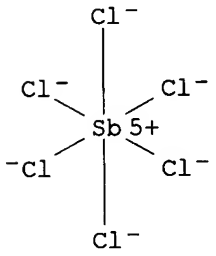
CM 1

CRN 69164-91-6
CMF C15 H12 N O2



CM 2

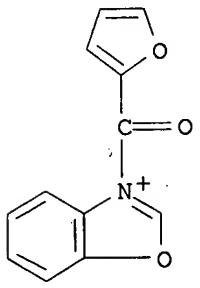
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 69164-94-9 HCAPLUS
CN Benzoxazolium, 3-(2-furanylcarbonyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

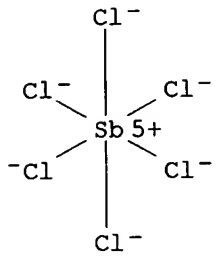
CM 1

CRN 69164-93-8
CMF C12 H8 N O3



CM 2

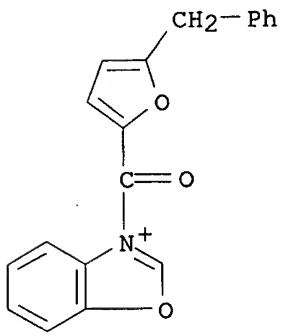
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 69164-96-1 HCAPLUS
CN Benzoxazolium, 3-[[5-(phenylmethyl)-2-furanyl]carbonyl]-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

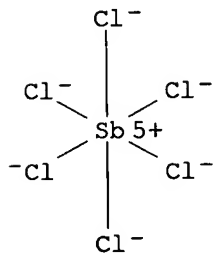
CM 1

CRN 69164-95-0
CMF C19 H14 N O3



CM 2

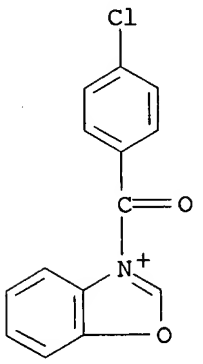
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 75967-49-6 HCAPLUS
CN Benzoxazolium, 3-(4-chlorobenzoyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

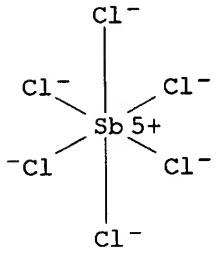
CM 1

CRN 75967-48-5
CMF C14 H9 Cl N O2



CM 2

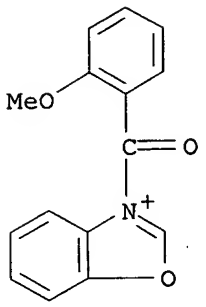
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 75967-53-2 HCAPLUS
CN Benzoxazolium, 3-(2-methoxybenzoyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

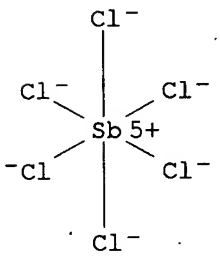
CM 1

CRN 75967-52-1
CMF C15 H12 N O3



CM 2

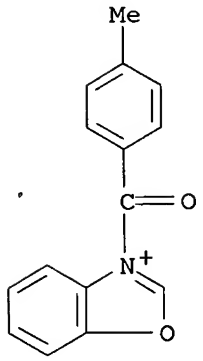
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 75967-55-4 HCAPLUS
CN Benzoxazolium, 3-(4-methylbenzoyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

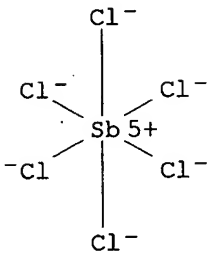
CM 1

CRN 75967-54-3
CMF C15 H12 N O2



CM 2

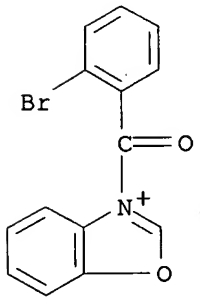
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 75967-57-6 HCAPLUS
CN Benzoxazolium, 3-(2-bromobenzoyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

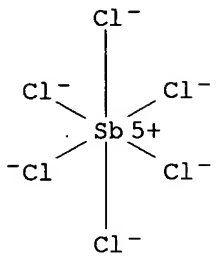
CM 1

CRN 75967-56-5
CMF C14 H9 Br N O2



CM 2

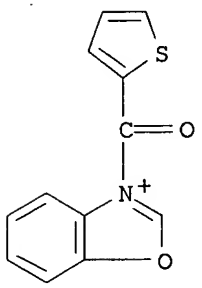
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 75967-59-8 HCAPLUS
CN Benzoxazolium, 3-(2-thienylcarbonyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

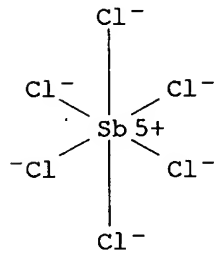
CM 1

CRN 75967-58-7
CMF C12 H8 N O2 S

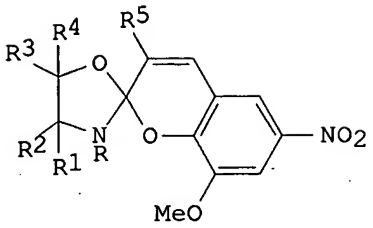


CM 2

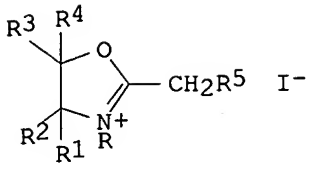
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



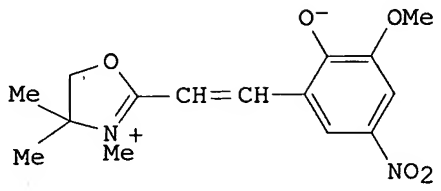
L9 ANSWER 59 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II



IV

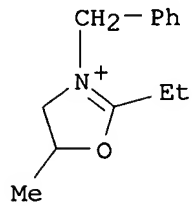
AB Oxazolidinespirochromenes I (R = C1-3 alkyl, PhCH2, allyl; R1 = H, Me, Et; R2 = H, Me; R3 = H, Me, CMe3; R4 = H, Me; R5 = C1-3 alkyl, C2-3 alkoxy, Ph, OPh) were prepared by the reaction of the resp. II with a salicylaldehyde derivative A mixture of II (R = R5 = Me, R1 = R2 = R3 = R4 = H), 3-methoxy-5-nitrosalicylaldehyde (III), and piperidine in EtOH was refluxed to give the resp. I. However, merocyanine compound IV was the only product obtained from II (R = R1 = R2 = Me, R3 = R4 = R5 = H) and III.

1979:456882 Document Number 91:56882 Spiropyrans and merocyanines in a saturated azaheterocyclic series. II. Reactivity of 1,3-oxazolinium salts with salicylic-type aldehydes. Secondary reactions. Maguet, Michel; Poirier, Yves; Guglielmetti, Robert (Laboratory Synth. Organic, University Bretagne Occidentale, Brest, 29283, Fr.). Bulletin de la Societe Chimique de France (11-12, Pt. 2), 550-60 (French) **1978**. CODEN: BSCFAS. ISSN: 0037-8968. OTHER SOURCES: CASREACT 91:56882.

IT **70490-00-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclocondenation reaction of, with salicylaldehyde derivative)

RN 70490-00-5 HCAPLUS

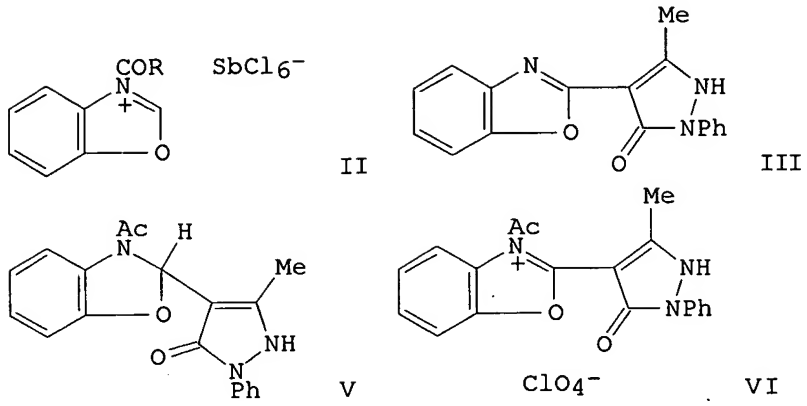
CN Oxazolium, 2-ethyl-4,5-dihydro-5-methyl-3-(phenylmethyl)-, iodide (9CI) (CA INDEX NAME)



● I^-

Delacroix

L9 ANSWER 60 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



AB Acylation of benzoxazole (I) with RCOCl (R = Me, Pr, Ph, o-tolyl, 2-thienyl, 5-benzyl-2-furyl) in CHCl3 containing SbCl5 gave 14.3-74% title salts II. Treating II with 3-methyl-1-phenylpyrazol-5-one gave III and o-HOC6H4NHCOR (IV); intermediate V was trapped with Ph3C+ ClO4- to give VI. II reacted with PhNH2 to give I.HSbCl6 and PhNHCOR, and with H2O to give IV and RCO2H.

1979:72097 Document Number 90:72097 Stable 1-acylbenzoxazolium salts as new acylating and hetarylating agents. Zherebchenko, V. I.; Stupnikova, T. V.; Sheinkman, A. K. (Donetsk. Derzh. University, Donetsk, USSR). Dopovidi Akademii Nauk Ukrains'koi RSR, Seriya B: Geologichni, Khimichni ta Biologichni Nauki (11), 991-3 (Ukrainian) **1978**. CODEN: DANND6. ISSN: 0377-9785.

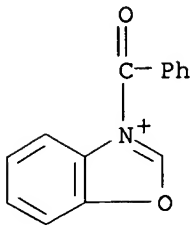
IT **69164-90-5P 69164-92-7P 69164-94-9P 69164-96-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactions of)

RN 69164-90-5 HCAPLUS

CN Benzoxazolium, 3-benzoyl-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

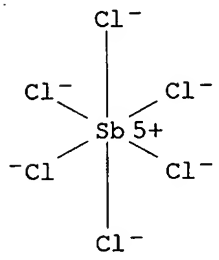
CM 1

CRN 69164-89-2
CMF C14 H10 N O2



CM 2

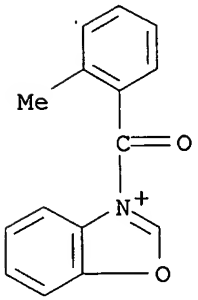
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



RN 69164-92-7 HCAPLUS
CN Benzoxazolium, 3-(2-methylbenzoyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

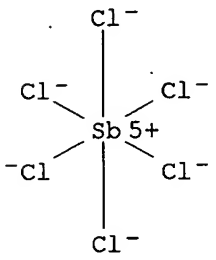
CRN 69164-91-6
CMF C15 H12 N O2



CM 2

CRN 17949-89-2
CMF Cl6 Sb

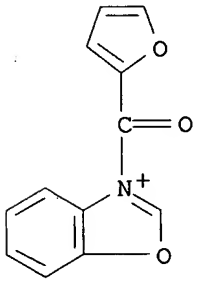
CCI CCS



RN 69164-94-9 HCAPLUS
CN Benzoxazolium, 3-(2-furanylcarbonyl)-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

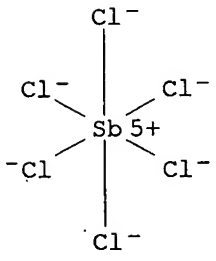
CM 1

CRN 69164-93-8
CMF C12 H8 N O3



CM 2

CRN 17949-89-2
CMF Cl6 Sb
CCI CCS

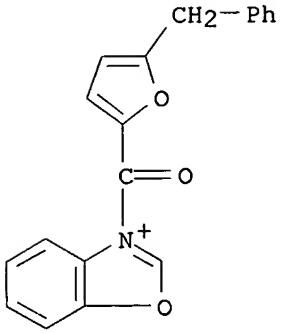


RN 69164-96-1 HCAPLUS
CN Benzoxazolium, 3-[[5-(phenylmethyl)-2-furanyl]carbonyl]-,

(OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

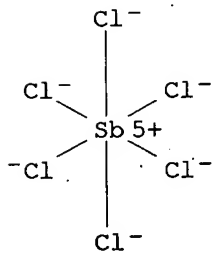
CM 1

CRN 69164-95-0
CMF C19 H14 N O3

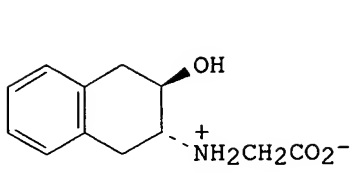


CM 2

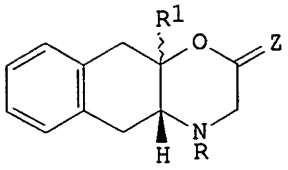
CRN 17949-89-2
CMF Cl6 Sb
CCI CCS



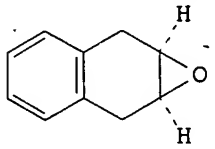
L9 ANSWER 61 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



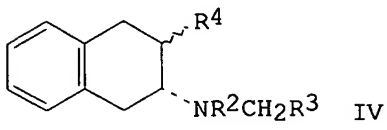
I



II



III



IV

AB Amino acid I cyclized with Ac2O in pyridine to give trans-azalactone II (R = Ac, Z = O, R1 = α-H) which was reduced with LiAlH4 and excess BF3 to give trans-naphthoxazine II (R = Et, Z = H2, R1 = α-H). This indicated that the naphthalamorpholine II (R = H, Z = H2, R1 = α-H) synthesized by L. Knorr (1899) from epoxide III via tetralol IV (R2 = H, R3 = CH2OH, R4 = β-OH) has the trans configuration. Cis-Naphthoxazine II (R = H, Z = H2, R1 = β-H) was prepared by cyclizing the cis-aminodiol IV (R2 = CH2Ph, R3 = CH2OH, R4 = α-OH) with H2SO4 followed by hydrogenolysis of the CH2Ph group. The H2SO4 dehydration giving cyclic ethers II occurs stereospecifically.

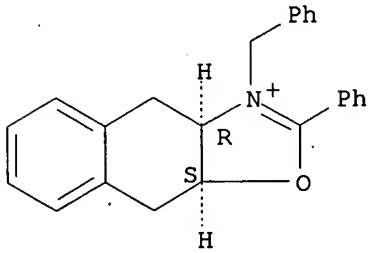
1978:443275 Document Number 89:43275 Derivatives of 2-amino-1,2,3,4-tetrahydronaphthalene, IV. Synthesis and configuration of the diastereomeric 2,3,4a,5,10,10a-hexahydro-4H-naphth[2,3-b]-1,4-oxazines ("naphthalanmorpholines"). Ivanov, I.; Danchev, D.; Sulay, P. B. (Pharm. Fak., Sofia, Bulg.). Chemische Berichte, 111(3), 1164-70 (German) **1978**. CODEN: CHBEAM. ISSN: 0009-2940. OTHER SOURCES: CASREACT 89:43275.

IT **66876-94-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ring cleavage of)

RN 66876-94-6 HCAPLUS

CN Naphth[2,3-d]oxazolium, 3a,4,9,9a-tetrahydro-2-phenyl-3-(phenylmethyl)-, chloride, cis- (9CI) (CA INDEX NAME)

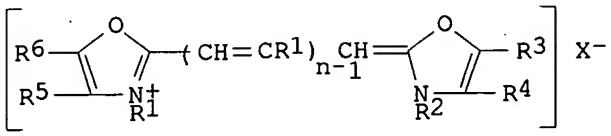
Relative stereochemistry.



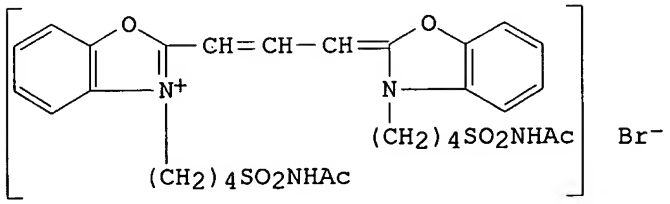
● Cl⁻

Delacroix

L9 ANSWER 62 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II

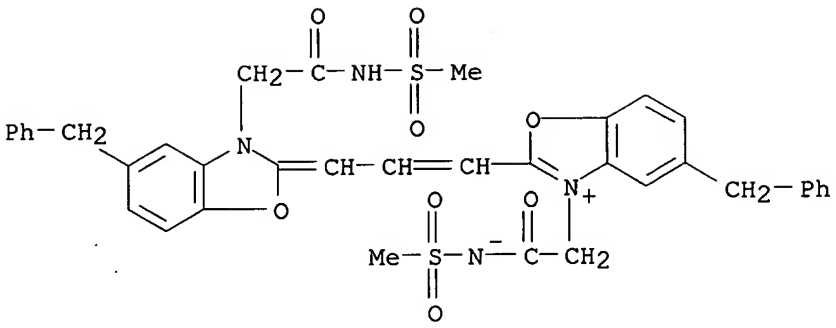
AB Dispersions of a photoconductive ZnO yield electrophotog. recording materials of improved light sensitivity when containing a dye having the general structure of I (R3, R4, R5, R6 = H, halo, alkyl, arylkyl, or R3R4 or R5R6 together may form a ring; R1, R2 = sulfatoalkyl, phosphatoalkyl, or a group containing NH2, substituted NH2, SO2, or CO; R7 = H, alkyl, or substituted alkyl; n = 1, 2; X = anion). Thus, a photoconductive ZnO 20 g was dispersed in a solution containing a maleic anhydride-N-vinylpyrrolidone polymer 0.1, a vinyl acetate-crotonic acid polymer 2, a melamine-HCHO resin 1, the dye II 0.01, and a concentrated NH4OH solution 38.5g, coated on a paper support, dried, and compared with a II-free control to show a photosensitivity increase of 56%.

1977:131107 Document Number 86:131107 Electrophotographic recording material. Verhille, Karel E.; Noe, Robert J.; Voet, Luciaan F.; Depoorter, Henri (Agfa-Gevaert A.-G., Fed. Rep. Ger.). Ger. DE 1772318 **19760722**, 6 pp. (German). CODEN: GWXXAW. APPLICATION: DE 1968-1772318 19680427.

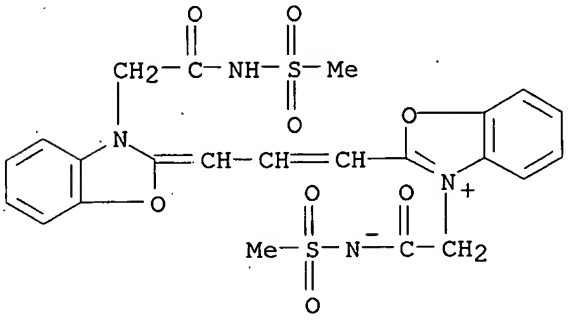
IT **27746-86-7 27795-11-5 27795-13-7**
RL: USES (Uses)
(electrophotog. sensitizer, for zinc oxide photoconductive compns.)

RN 27746-86-7 HCAPLUS

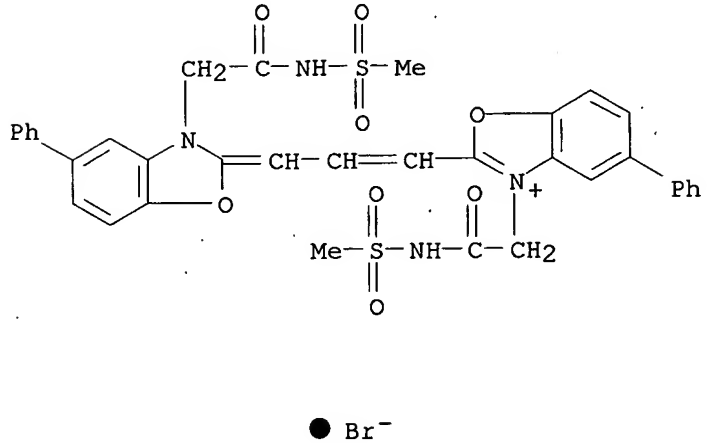
CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[3-[3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-5-(phenylmethyl)-2(3H)-benzoxazolylidene]-1-propenyl]-5-(phenylmethyl)-, inner salt (9CI) (CA INDEX NAME)



RN 27795-11-5 HCAPLUS
CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[3-[3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2(3H)-benzoxazolylidene]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)

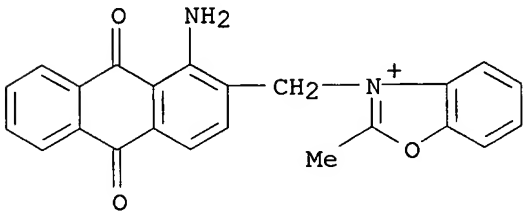


RN 27795-13-7 HCAPLUS
CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[3-[3-[[(methylsulfonyl)amino]-2-oxoethyl]-5-phenyl-2(3H)-benzoxazolylidene]-1-propenyl]-5-phenyl-, bromide (9CI) (CA INDEX NAME)



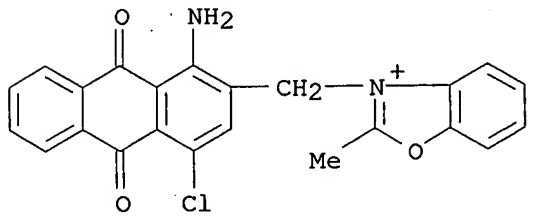
● Br^-

L9 ANSWER 63 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB Anthraquinone dyes (I, R = NH2, OH; R1 = H, Cl, NH2, OH; A = atoms needed to complete a pyridine, methylpyridine, quinoline, isoquinoline, benzothiazole, benzimidazole, or benzoxazole residue), used for dyeing acid-modified polyester fibers, were prepared by treating the appropriate chloromethyl- or [(chlorosulfinyloxy)methyl]anthraquinone with a nitrogen heterocycle.
1976:166223 Document Number 84:166223 Preparation of some new water-soluble anthraquinone dyes without an acidic or sulfonic acid group. Metwally, Saoud A. (Faculty Sci., Assiut University, Assiut, Egypt). Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry, 14B(1), 54-6 (English) **1976**. CODEN: IJSBDB. ISSN: 0376-4699.
OTHER SOURCES: CASREACT 84:166223.
IT **59174-38-8 59174-48-0 59174-58-2**
59174-63-9 59174-68-4
RL: USES (Uses)
(dye, for acid-modified polyester fibers)
RN 59174-38-8 HCAPLUS
CN Benzoxazolium, 3-[(1-amino-9,10-dihydro-9,10-dioxo-2-anthracenyl)methyl]-2-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl^-

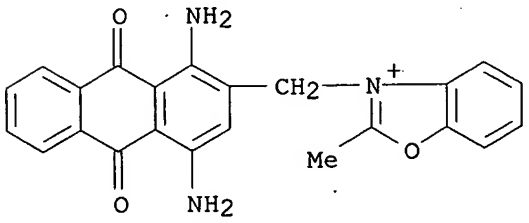
RN 59174-48-0 HCAPLUS
CN Benzoxazolium, 3-[(1-amino-4-chloro-9,10-dihydro-9,10-dioxo-2-anthracenyl)methyl]-2-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl^-

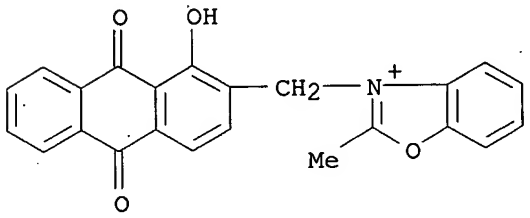
RN 59174-58-2 HCAPLUS

CN Benzoxazolium, 3-[(1,4-diamino-9,10-dihydro-9,10-dioxo-2-anthracenyl)methyl]-2-methyl-, chloride (9CI) (CA INDEX NAME)



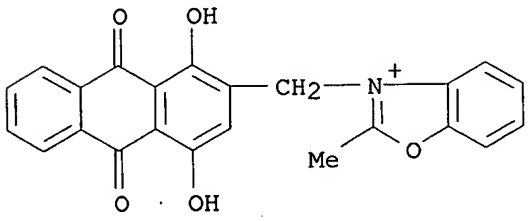
● Cl^-

RN 59174-63-9 HCAPLUS
CN Benzoxazolium, 3-[(9,10-dihydro-1-hydroxy-9,10-dioxo-2-anthracenyl)methyl]-2-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl^-

RN 59174-68-4 HCAPLUS
CN Benzoxazolium, 3-[(9,10-dihydro-1,4-dihydroxy-9,10-dioxo-2-anthracenyl)methyl]-2-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl^-

L9 ANSWER 64 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

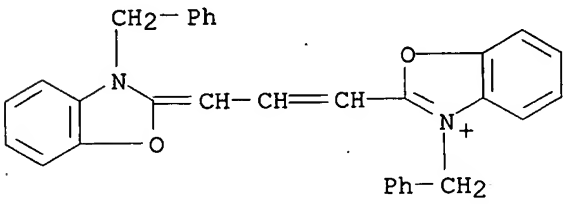
AB N-Anilinocarbazole, obtained by treating carbazole with PhNO2-NaOH at <100°, followed by hydrogenation, and its alkylated or benzylated derivs. are photoconductors which can be mixed with other organic or inorg. photoconductors and sensitized with 0.01-5% of methine, Ph3Me, or xanthene dyes or with nonionic Lewis acids forming a charge transfer complex. With <90% of a vinyl chloride, epoxy, silicone polymer as binder they can be coated as 2-20 μ layers having an optical d. <0.3 and accepting pos. or neg. charges. Thus, Al-laminated paper was coated with a mixture of a 10% solution of N-anilinocarbazole in CH2Cl2 50 ml, a vinyl chloride-vinyl acetatemaleic anhydride terpolymer 5 g, and ClC2H4Cl 45 ml to give 2 g photoconductor per m2.

1974:408409 Document Number 81:8409 Electrophotographic recording material and method. Janssens, Wilhelmus; Dierckx, Josef; Sneyers, Hendrik H. (Agfa-Gevaert A.-G.). Ger. Offen. DE 2346803 **19740328**, 43 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1973-2346803 19730918.

IT **53167-78-5**
RL: USES (Uses)
(electrophotog. anilinocarbazole photoconductive composition sensitized by)

RN 53167-78-5 HCAPLUS

CN Benzoxazolium, 3-(phenylmethyl)-2-[3-[3-(phenylmethyl)-2(3H)-benzoxazolylidene]-1-propenyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

L9 ANSWER 65 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB N-(2-Chloroethyl)-N-acyl (aroyl benzamides) acetamides were solvolyzed in refluxing aqueous MeCN, in aqueous MeCN with equimolar amts. of AgNO3 (25°), and in refluxing MeOH. Hydrolyses produced the corresponding amidoesters while methanolyses produced equimolar amts. of Me esters and N-2-chloroethylamides. These solvolyses represent a new class of neighboring group reactions involving imide moiety participation, presumably via N-aroyl(acyl)-2-oxazolinium cations. Several such cations were synthesized, isolated and characterized. Evidence for the intervention of these cations in the solvolyses is presented. The preferred preparative route for the cations involved cyclization of appropriate N-(2-chloroethyl)imides with AgBF4 or AgSbF6. Selective participation of the better carbonium ion stabilizing carbonyl function was observed when cyclizing unsym. imides. The ambident character of these cations was noted in that chloride ion attack occurred at the 5-position to produce N-(2-chloroethyl)imides; hydrolyses and methanolyses involved nucleophilic attack at the 2-position producing resp. amidoesters and equimolar amts. of Me esters as well as 2-substituted-2-oxazolinium salts.

1973:83533 Document Number 78:83533 Heteronuclear stabilized carbonium ions.

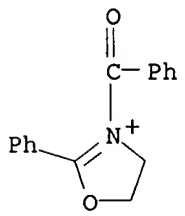
II. N-Aroyl- and aryl-2-oxazolinium cations. Intermediates in a new class of neighboring group reactions. Tomalia, Donald A.; Paige, Janet N. (Edgar C. Britton Res. Laboratory, Dow Chemical Co., Midland, MI, USA). Journal of Organic Chemistry, 38(3), 422-30 (English) **1973**. CODEN: JOCEAH. ISSN: 0022-3263.

IT **36994-88-4P 36994-89-5P 36994-90-8P 36994-92-0P 36994-93-1P 36994-94-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 36994-88-4 HCAPLUS
CN Oxazolium, 3-benzoyl-4,5-dihydro-2-phenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

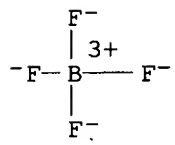
CM 1

CRN 46966-47-6
CMF C16 H14 N O2



CM 2

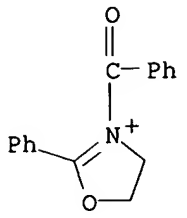
CRN 14874-70-5
CMF B F4
CCI CCS



RN 36994-89-5 HCAPLUS
CN Oxazolium, 3-benzoyl-4,5-dihydro-2-phenyl-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

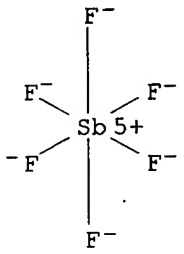
CM 1

CRN 46966-47-6
CMF C16 H14 N O2



CM 2

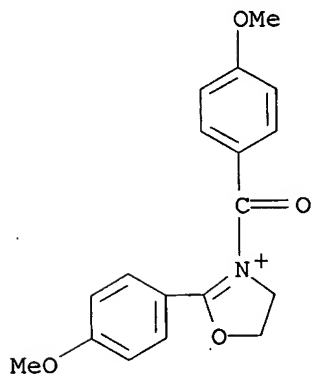
CRN 17111-95-4
CMF F6 Sb
CCI CCS



RN 36994-90-8 HCAPLUS
CN Oxazolium, 4,5-dihydro-3-(4-methoxybenzoyl)-2-(4-methoxyphenyl)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

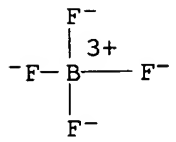
CM 1

CRN 47284-24-2
CMF C18 H18 N O4



CM 2

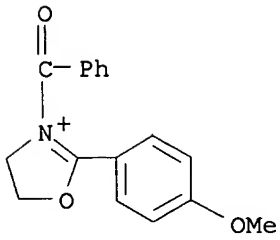
CRN 14874-70-5
CMF B F4
CCI CCS



RN 36994-92-0 HCAPLUS
CN Oxazolium, 3-benzoyl-4,5-dihydro-2-(4-methoxyphenyl)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

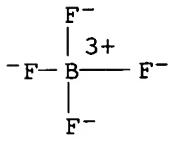
CM 1

CRN 47138-95-4
CMF C17 H16 N O3



CM 2

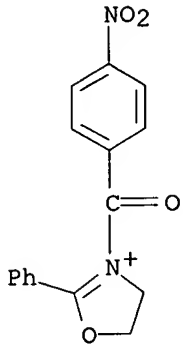
CRN 14874-70-5
CMF B F4
CCI CCS



RN 36994-93-1 HCAPLUS
CN Oxazolium, 4,5-dihydro-3-(4-nitrobenzoyl)-2-phenyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

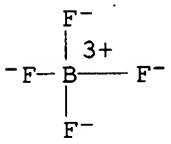
CM 1

CRN 47209-53-0
CMF C16 H13 N2 O4



CM 2

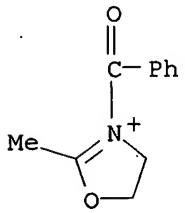
CRN 14874-70-5
CMF B F4
CCI CCS



RN 36994-94-2 HCAPLUS
CN Oxazolium, 3-benzoyl-4,5-dihydro-2-methyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

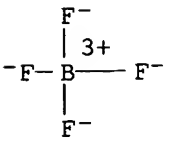
CM 1

CRN 46265-88-7
CMF C11 H12 N O2



CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



L9 ANSWER 66 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

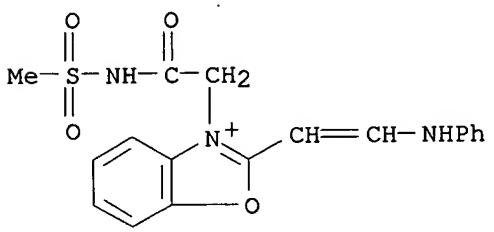
AB The title dyes I, where R = CH2CONHSO2Me.NEt3, Et, (CH2)3OSO3Na, (CH2)3SO3H.NEt3, (CH2)4SO2NHAc, or (CH2)3SO3Na, and R1 = H, 5-Cl, or 6-MeO, useful as spectral sensitizers for Ag halide emulsions, were prepared by reaction of II, where X = Cl or iodine, with the corresponding hydantoin derivs. Thus, treatment of 1,3-bis(ethoxycarbonylmethyl)thiohydantoin with II (R = Et, R1 = H, X = iodine) in Me2SO in the presence of Et3N and Ac2O gave a merocyanine dye (I, R = Et, R1 = H) [34039-21-9]. Six other I were also prepared A poly(ethylene terephthalate) carrier was coated with a lithog. Ag halide (76:23:1 moles AgCl-AgBr-AgI) emulsion containing 0.6 mole Ag halide/kg and 0.1 mole I (R = CH2CONHSO2Me.NEt2, R1 = H)/kg at 0.07 mole Ag halide/m2. On exposure through a yellow filter, the following sensitometric values were found: Δ log It 2.63 (Δ log It 0.30 = doubling of sensitivity), maximum sensitivity 540 nm.

1972:60965 Document Number 76:60965 Merocyanine dyes. Depoorter, Henri; Schellekens, Jozef R.; Ghys, Theofiel H. (Agfa-Gevaert A.-G.). Ger. Offen. DE 2105181 **19710923**, 19 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1971-2105181 19710204.

IT **34942-73-9P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 34942-73-9 HCAPLUS

CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[2-(phenylamino)ethenyl]-, bromide (9CI) (CA INDEX NAME)



L9 ANSWER 67 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The merocyanine dyes [I; R = CH2CONNaSO2Me, (CH2)3OSO3Na, (CH2)3OSO3H.NEt3, (CH2)4SO2NHAc, or CH2CONHSO2Me.NEt3; R1 = CH2CO2Et, CH2CO2H, CH2CO2Me, Et, (CH2)3SO3Na; R2 = Et, Ph, CH2CO2Et, CO2Et, or Me] were prepared by reaction of 2-(2-anilinovinyl)benzoxazolium salts with thiohydantoins. I had excellent sensitizing activity in the green region

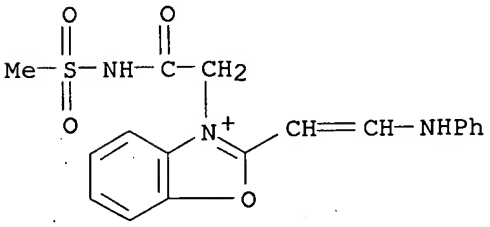
of the spectrum. Thus, 2-methyl-3-[[(methylsulfonyl)carbamoyl]methyl]benz oxazolium bromide was heated 10 min with Ac2O and diphenylformamidine at 130.deg. to give 48% 2-(2-anilinovinyl)-3-[[(methylsulfonyl)carbamoyl]meth yl]benzoxazolium bromide, which (2.26 g) was heated with 1.15 g 1-[(ethoxycarbonyl)methyl]-3-ethyl-2-thiohydantoin in Me2SO-NEt3-Ac2O 10 min at 50.deg. to give 0.75 g 2-[2-[1-[(ethoxycarbonyl)methyl]-3-ethyl-2-thioxo-4-oxo-5-imidazolidinylidene]ethylidene]-3-[[(methylsulfonyl)carbamoyl]methyl]benzoxazole sodium salt (I, R = CH2CONNaSO2Me, R1 = CH2CO2Et, R2 = Et)(II) [33815-29-1]. Similarly prepared were 23 other I. A lithog. Ag halide emulsion containing 0.6 mole Ag halide (AgCl 76, AgBr 23, AgI 1 mole %) per kg emulsion and 0.1 mmole II per mole Ag halide was applied onto a poly(ethylene terephthalate) substrate to give a photog. layer with maximum sensitivity at 535 nm and Δ log It + 2.63 (Δlog It = +0.30 is equivalent to a doubling of the sensitivity) when compared with an emulsion free of sensitizer.

1972:35236 Document Number 76:35236 Merocyanine dyes as sensitizers for silver halide emulsions. Depoorter, Henri; Ghys, Theofiel H. (Agfa-Gevaert A.-G.). Ger. Offen. DE 2106517 **19710909**, 22 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1971-2106517 19710211.

IT **34942-73-9P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 34942-73-9 HCAPLUS

CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[2-(phenylamino)ethenyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

L9 ANSWER 68 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

GI For diagram(s), see printed CA Issue.

AB Carbocyanines I, where n is 0 and 1 (X is Br and I), are added to dispersions of ZnO in vinyl copolymer solution andthe compns. are coated on parchment paper to give layers 3-10 μ thick. The ZnO-binder weight ratio is 1:0.1-1:0.6, the amount of I added is 0.0-1mg/g ZnO, and the coating compns.contain 95-60 weight % ZnO. Thus, a dispersion prepared from 20 g ZnO, 25 ml H2O, and 1 ml 10% maleic anhydride-1-vinylpyrrolidone copolymer (1:9 NH3-water) is added to a solution of 2 g vinyl acetate-crotoric acid copolymer and 1.25 ml melamine-formaldehyde resin in 25 ml water and 1 ml 25% NH3,, and a 0.1% solution of I [R =r1 = O,R2 =CH2CONHSO2Me,, R3 = Et, R5 = R7 = PhCH2, R4 = R6 =R8 = H, n = 1 (X= I] is added at 0.5mg/g ZnO. The composition is coated on a baryta paper to give 25 g ZnO/m2, charged (-7000 V), irradiated for 15 sec (2240 lux, 2750°K), and developed. The

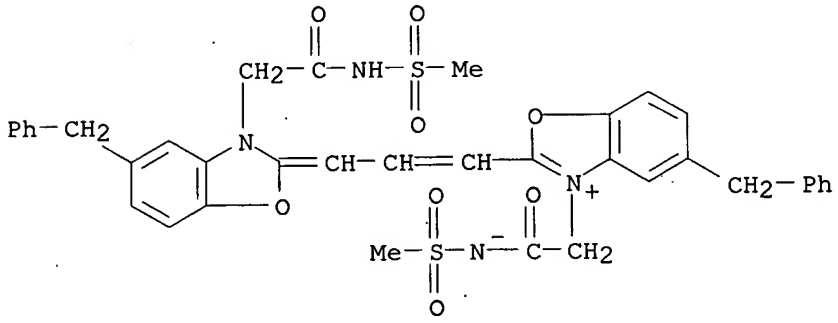
sensitivity is more than double that of a standard photoconductor material. Also used are sM40 addnl. tA, where R and R1,R2 and R3, and R5 and R7 are the same or different, R and R1 are O, S, Se, and NEt, R2 and R3 are Et, (CH2)nSO2NHAc and (CHnS O2N-Ac, CH2CONHSO2Me,CH2CON-SO2Me, and (CH2)3-OSO3-, R4 and R6 are H and Me, R5 and R7 are PHCH2, P H, Me, and OMe, and R8 is H or a C1-3 alkyl group.

1970:95344 Document Number 72:95344 Sensitized zinc oxide photoconductor compositions. Verhille, Karel E.; Noe, Robert J.; Voet, Luciaan F.; Depoorter, Henri (Gevaert-Agfa N. V.). Fr. FR 1560976 **19690321**, 28 pp. (French). CODEN: FRXXAK. PRIORITY: GB 19670426.

IT **27746-86-7**
RL: USES (Uses)
(zinc oxide photoconductor sensitized by, for electrophotography)

RN 27746-86-7 HCAPLUS

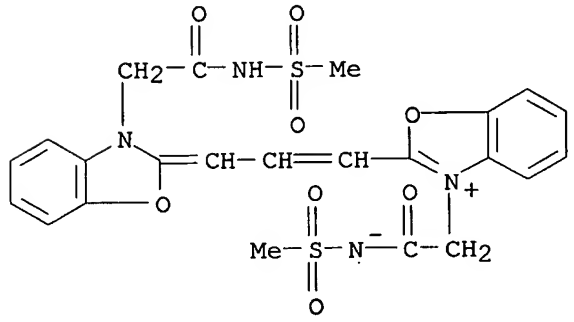
CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[3-[3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-5-(phenylmethyl)-2(3H)-benzoxazolylidene]-1-propenyl]-5-(phenylmethyl)-, inner salt (9CI) (CA INDEX NAME)



IT **27795-11-5 27795-13-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(zinc oxide photoconductor sensitized by, for electrophotography)

RN 27795-11-5 HCAPLUS

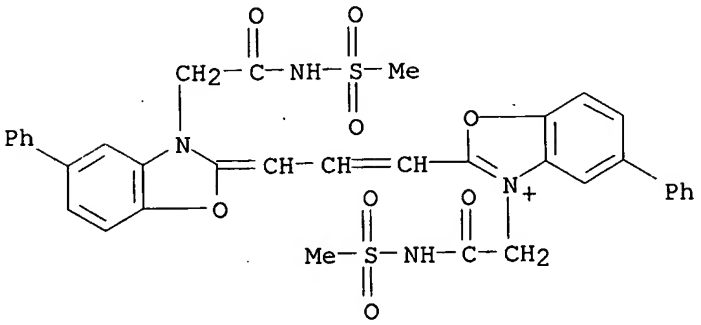
CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[3-[3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2(3H)-benzoxazolylidene]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)



RN 27795-13-7 HCAPLUS

CN Benzoxazolium, 3-[2-[(methylsulfonyl)amino]-2-oxoethyl]-2-[3-[3-

[[(methylsulfonyl)amino]-2-oxoethyl]-5-phenyl-2(3H)-benzoxazolylidene]-1-propenyl]-5-phenyl-, bromide (9CI) (CA INDEX NAME)



● Br^-

L9 ANSWER 69 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The preparation is described of polymethine photog. sensitizers which contain at least 1 heterocyclic N atom and an organic group of the type AWNHXY or AWNXY, where A is a hydrocarbon radical, W and X are SO2 or CO or single bonds, at least 1 W or X is SO2, and Y is a hydrocarbon radical, a substituted amino group, or (if X is not CO or SO2) a 14 atom. The absorption maximum of a dye, the upper limit of sensitization by the dye of a photog. emulsion layer, and the absorption maximum of the sensitized Ag halide emulsion are given in mμ in parentheses together with the dye throughout this abstract Powdered Br(CH2)3SO3Na (275 g.) added with cooling and stirring slowly to 276 g. PCl5, kept 1 h. at room temperature, heated 2 h. at 70 80°, cooled, poured with stirring onto 700 g. ice, stirred some time, and extracted with Et2O yielded Br(CH2)3SO2Cl (I), b2 98°. 1 (25 g.) in 250 cc. dry Et2O treated with stirring at 0° with dry NH3 gave Br(CH2)3SO2NH2 (II), m. 60° (C6H6-petr. ether). II (7 g.) and 5.2 cc. Ac2O heated 1 h. on a water bath, cooled, and filtered gave Br(CH2)3SO2NHAc, m. 93°. EtNH2 (4 g.) in 10 cc. dry Et2O added dropwise with stirring to 9.5 g. Br(CH2)4SO2Cl (III) in 100 cc. dry Et2O at 0°, filtered, and worked up gave Br(CH2)4SO2NHEt, m. 33-5° (C6H6-petr. ether). MeSO2NH2 (IV) (4 g.) in 20 cc. H2O treated dropwise at 5° with stirring with 16.8 cc. 5N NaOH and 9 g. I during 3 h. at pH 8, stirred 20 min., acidified with 4.2 cc. concentrated HCl, and evaporated, and the residue extracted with Me2CO gave from the extract Br(CH2)3SO2NHSO2Me, m. 72°. IV (72 g.) and 208 g. BrCH2COCl heated 1 h. at 100° gave BrCH2CONHSO2Me, m. 110° (C6H6). EtSO2NH2 (4.8 g.), 12 g. BrCH2COCl, and 25 cc. dry C6H6 refluxed 3 h., cooled, and diluted with petr. ether gave BrCH2CONHSO2Et, m. 104° (C6H6). BrCH2CH2NH2.HBr (51 g.) in 100 cc. C5H5N treated at 5-10o dropwise with MeSO2Cl, cooled, filtered, and evaporated, and the residual oil extracted with Me2CO gave MeSO2NHCH2CH2Br, m. 49°. III (23.,5 g.) in 100 cc. dry dioxane treated with stirring at 0° with 6.4 cc. N2H4, stirred 1 h. at 0° filtered, and evaporated yielded oily Br(CH2)4SO2NHNH2 (V). V (31.7 g.) treated gradually with 31.7 cc. Ac2O, kept several days, heated

1 h. on the water bath, and cooled gave Br(CH2)4SO2NHNAc2 m. 116° (C6H6-hexane). Me2 NSO2NH2 (186 g.), 409 g. BrCH2COCl, and 2 1. dry C6H6 refluxed 10-15 h., filtered, cooled, and diluted with 3 I. hexane gave BrCH2CONHSO2Me2, m. 84°. 2-(2-Acetylanilinovinyl)-3-ethylbenzoxazolium iodide (Va) (1.45 g.), 1 g. 2,4-dimethyl-3-(3-sulfamoylpropyl)thiazolium bromide, 15 co. C5H5N, and 1 cc. Et3N heated 10 min. on a water bath and poured into Et2O precipitated [2-(3-ethylbenzoxazole)][2-[3(3 - sulfamoylpropyl) - 4 - methylthiazole]] trimethinecyanine iodide (VI) (517, 600, 550). 1-(2-Methylsulfonylaminoethyl)quinolinium bromide (2.6 g.) and 2.3 g. 2-methylthio3-methylbenzothiazolium toluenesulfonate gave similarly [2-[1-(2-methylsulfonylaminoethyl)quinoline]] [2-(3-methylbenzothiazole)]monomethinecyanine bromide (486, 560, 540), and 4.07 g. 2,6-dimethyl-3-(3-acetylsulfamoylpropyl)benzcthiazolium bromide and 2.6 g. 1-phenyl-3-methyl-4(α-ethylthioethylidene)-5-pyrazolone yielded [2-[3-(3-acetylsulfamoylpropyl)-6 - methylbenzothiazole]] [4 - (1-Ph - 3-methyl-5-pyrazolone)]-α-dimethinemerocyanine (492, 620, 540). 2-Methylthio-3- methylnaphtho [1',2',4,5] thiazolium methosulfate (VII) (1.8 g.) and 1.8 g. 2-methyl-3-(4acetylsulfamoylbutyl)benzothiazolium bromide (VIIa) in 20 cc. EtOH treated at 0° with 1.4 cc. Et3N, shaken 2 h. at 0° and filtered gave [2-(3-methylnaphtho[1',2',4,5]thiazole)] [2 - [3 - (4 - acetylsulfamoylbutyl)benzothiazole]] - monomethinecyanine bromide (VIII) (444, 500,480). Similarly, were prepd, the following dyes (starting materials and g. amts. used are given): [2-[3-[3-(N-methylsulfonylsulfamoyl)propyl]benzothiazole]-2-(3 - ethylthiazoline)]trimethinecyanine bromide (504, 590, 540), 2-methyl-3-[3-(N-methylsulfonylsulfamoyl)propyl] benzothiazolium bromide, 4.29, 2-(2-acetylanilinovinyl)-3-ethylthiazolium bromide, 3.55; [2-(3-methylnaphtho[1',2',4,5]thiazole)] [3-(N-methylsulfonylcarbamoylmethyl)benozhiazolel]monomethinecyanine bromide (444, 500, 480), VII, 3.6, 2-Me - 3 - (N- methylsulfonylcarbamoylmethyl)benzothiazolium bromide, 3.6; [2-[3-(N-methylsulfonylcarbamoyhnethyl)benzoselenazole]] [2 - (3 - ethylbenzothiazole)] mesomethyltrimethinecyanine bromide (550, 670, 605), 2-methyl-3-(N-methylsulfonylcarbamoyhnethyl)benzoselenazolium bromide, 4.12, 2-(2-methyl-2-methylthiovinyl)-3-ethylbenzothiazolium methosulfate, 3.61; (2,3-[2-(N-methylsulfonylcarbamoyl)ethyl] benzothiazole) [2 - (3 - ethylbenzoxazole)]trimethinecyanine iodide (522, 600, 560), 2-methyl-3-[2-(N-methylsulfonylcarbamyl)ethyl] benzothiazolium bromide, 3.79, Va, 4.34; 2-[3-(2-methylsulfonylandnoethyl)benzothiazole] [2-(3-ethylthiazoline)]trimethinecyanine bromide (501, 580, 540), 2-methyl-3-(2-methylsulfonylaminoethyl)benzothiazolium bromide (VIIIa), 5.3, 2-(2-acetylanilinovinyl)-3ethylthiazolinium bromide, 5.3. 2-Methyl-3-(3-acetylsulfamoylpropyl)-5-phenylbenzoxazolium bromide (4.53 g.) and 4.50 g. 2-(2-acetylanilinovinyl)-3-ethylbenzothiazolium iodide (VIIIb) in 20 cc. EtOH treated at 0° with 2.8 cc. Et3N, kept 2 h., and diluted with Et2O, and the precipitate dissolved in warm EtOH, treated with aqueous KI, and filtered gave [2- [3 - (3 - acetylsulfamoylpropyl) - 5-phenylbenzoxazole]] [2(3-ethylbenzothiazole)]trimethinecyanine iodide (526, 615, 560). [2-[3-(4-Ethylsulfamoylbutyl)benzoselenazole]] [2-(3ethylbenzoselenazole)] mesomethyltrimethinecyanine iodide (IX) (560, 660, 605-10) was prepd, by heating 5.8 g. 2-methyl-3 - (4 - ethylsulfamoylbutyl)benzoselenazolium bromide, 2 g. 2-(2-methylthio-2-methylvinyl)-3-ethylbenzoselenazolium methosulfate, 30 cc. C5H5X, and 2 cc. Et3N 5 min., and pouring into Et2O, dissolving the precipitate in EtOH, and treating the solution with aqueous KI. 2-Methyt-3-(4-

acetylsulfamoylbutyl)benzothiazolium bromide (IXa) (4.07 g.). 2.96 g. HC(OEt)3 (X), and 10 cc. Ac2O refluxed 15 min. and cooled gave bis[2- [3-(4-acetylsulfamoylbutyl)benzothiazole]]trimethinecyanine bromide (560, 665, 595). 2-Methyl-3 - [2 - (N- methylsulfonylcarbamoyl)ethyl] benzoselenazolium bromide (4.26 g.), 2.96 g. X, and 25 cc. Ac2O gave similarly bis[2-[3-(2-(N-methylsulfonylcarbamoyl)ethyiz)benzoselenazole]]t rimethinecyanine bromide (576, 670, 605-10), and 4.9 g. 1-ethyl-2-methyl-3-(4-acetylsulfamoylbutyl)-5,6-dichlorobenzimidazolium bromide with 4.4 g. Va gave [2-(3-ethylbenzoxazole)]2-[1-ethyl-3-(4-acetylsulfamoylbutyl) - 5,6 - dichlorobenzimidazole] trimethinecyanine iodide (490, 600, 547). 2-Methyl-3-(N-ethylsulfonylcarbamoylmethyl)benzoth iazolium bromide (3.79 g.), 3.24 g. MeC(OEt)3, and 25 cc. C5H5N refluxed 10 min., cooled, and diluted with Et2O precipitated bis[2-[3-(N-ethylsulfonylcarbamoyhnethyl)benzothiazole]] mesomethyltrimethinecyanine bromide (546, 660, 600). 2-Methyl-3-(dimethylaminosulfonylcarbamoylmethyl) benzothiazolium bromide (5.9 g.) and 5.9 cc. MeC(OMe)3 gave similarly bis[2-[3-(dimethylaminosulfonylcarbamoylmethyl)benzothiazole]] mesomethlyltrimethinecyanine iodide (549, 650, 595). 2,5,6-Tri-Me - 3 - (N - methylsulfonylcarbamoylmethyl)benzothiazolium bromide (3.93 g.), 4.5 g. VIIIb, 50 cc. EtOH, and 2.8 cc. Et3N refluxed 15 min. and cooled gave [2-[3-(N-methylsulfonylcarbamoylmethyl) - 5,6 - dimethylbenzothiazole]] [2(3-ethylbenzothiazole)]trimethinecyanine iodide (568, 670, 605-10). Similarly, were prepared (same data given): [2-(3 ethylbenzoxazole)] [2 - [3 -dimethylaminosulfonylcarbamoylmethyl)benzothiazole]]trimethinecyanine iodide (526, 600, 560), 2-methyl-3-(dimethylaminosulfonylcarbamoylmethyl)b enzothiazolium bromide, 2, Va, 2.17; 2-[3-(2-methylsulfonylcarbamoylethyl) - 5 - methylbenzothiazole] [5 - (3 - allyl- rhodanine)]dimethinemerocyanin e (530, 640, 605), 2,5-dimethyl-3-(2-methylsulfonylcarbamoylethyl)benzothi azolium bromide, 3.9, 3-allyl-5-acetylanilinomethylidenerhodanine (XI), 3.2; [2-[3-(3-acetylsulfamoylpropyl)benzothiazole]][5-(3-allylrhodanine)]dimethinemerocyanine (524, 640, 605), 2-methyl-3-(3-acetylsulfamoylpropyl)benzothiazolium bromide, 4, XI, 3.2; [2-[3-(2-methylsulfonylaminoethyl)benzothiazole]] [5- (3 -allylrhodanine)] dimethinemerocyanine (XII) (522, 650, 600), Villa, 15.8, XI, 14.3; [2-[3-ethyl-4(3-ethyl-2-benzothiazolinylidenethylidene)-5-thiazolinone]][2 - [3 - (2 - methylsulfonylaminoethyl)ben zothiazole]] monomethinecvanine bromide (611, 710, 660), [2-(3-ethylbenzothiazole)][4-(2-methylthio-3-Et - 5 - thiazolinone)] dimethinemerocyanine methosulfate, 4.75, Villa, 3.5. 2-Methyl- 3 - (N - methylsulfonylcarbamoylmethyl)- 5 - phenylbenzoxazolium bromide (4.25 g.), 4.5 g. VIIIb, 25 cc. Ac2O, and 2.8 cc. Et3N refluxed 10 min. and cooled gave [2-[3-(N-methylsulfonylcarbamoylmethyl) - 5 - phenylbenzoxazole]] [2-(3ethylbenzothiazole)]trimethinecyanine iodide (526, 620, 560). Similarly were prepd (same data given) [2-[3-(4-acetylsulfamoylbutyl) - 5,6 - dimethylbenzoxazole]] [2 - [3 - (N methylsulfonylcarbamoylmethyl)-5,6-dimethylbenzoxazole] trimethinecyanine bromide (501, 555, 520), 2,5,6-trimethyl- 3-(N)-methylsulfonylcarbamoylmethyl)benzoxazolium bromide, 2.4, 2-(2-anilinoyinyl)-3-(4-acetylsulfamoylbutyl)5,6-dimethylbenzoxazolium bromide (XIII), 2.6; anhydro[2- [3 - (4-acetylsulfamoylbutyl) - 5,6- dimethylbenzoxazole]][2-[3 - (sulfocarbomethoxymethyl)benzothiazole]] trimethinecyanine hydroxide (526, 600, 560), XIII, 2.6, 2-methyl-3(sulfocarbomethoxymethyl)benzothiazo lium bromide Na salt, 2.0; bis[2-[3-(4-(acetylsulfamoylbutyl)benzothiazole]]pentamethinecyanine bromide (654, 760, 700), IXa, 8.14, 1-anilino-3-phenyliminopropene-HCl, 2.6; 2-(3,3-dicyanopropenylidene)- 3 - (4 - acetylsulfmoylbutyl)benzothiazoline (450, 540, 485), Xa, 4, anilinomethylidenemalononitrile 1.7. VIlla (7 g.) in 30 cc. C5H5N refluxed

0.5 h. with 7 cc. X and diluted with aqueous KBr gave bis[2-[3-(2-methylsulfonylaminoethyl)benzothiazole]]trimethinecyanine bromide (563, 665, 595). 2-Methyl-3-(N-methylsulfonylcarbamoylethyl)5-chlorobenzothiazolium bromide (4.1 g.) with 2.96 g. X gave similarly [2-[3-(N-methylsulfonylcarbamoylethyl)-5-chlorobenzothiazole]]trimethine cyanine bromide (570, 675, 610), and 1 g. 2-methyt-3-(3-acetylsulfamoylpropyl)-5-phenylbenzoxazolium bromide with 1 cc. PrC(OEt)3 yielded bis[2- [3-(3 - acetylsulfonylpropyl)- 5-phenylbenzoxazole]] mesopropyltrimethinecyanine iodide (506, 580, 555). 2,4-Di- Me - 3 - (N - methylsulfonylcarbamoylmethyl)thiazolium bromide (1.64 g.) and 2 g. 2-(2-anilinovinyl)-3-benzylbenzoxazolium bromide in 15 cc. C5H5N, 2 cc. Ac2O, and 1.4 cc. Et3N heated 10 min., poured into Et2O, and the precipitate treated with aqueous NaI yielded [2-(3-benzylbenzoxazole)][2-[3-(N-methylsulfonylcarbamoylmethyl) - 4 - methylthiazole]]trimethinecyanine iodide (514, 600, 555). 2-Methyl-3-(N-methylsulfonylcarbamoylmethyl)-5-methylbenzothiazolium bromide (3.8 g.) and 5.2 g. 2-(2-acetylanilinovinyl)-3propylthiazolinium bromide in 25 cc. MeOH treated at 0° with 2.8 cc. Et3N, kept 1.5 h. at 0° and diluted with Et2O gave [2-[3-(N-methylsulfonylcarbamoylmethyl)-5-methylbenzothiazole]] - [2 - (3-propylthiazoline)]trimethinecyanine bromide (509, 585, 545). 2,6-Dimethyl-3-(3-acetylsulfamoylpropyl)benzothiazolium bromide (4.1 g.) and 4.5 g. 2-(2- acetylanilinovinyl)selenazolium-EtI in 30 cc. MeOH treated at 0° with 2.8 cc. Et3N gave 2-[3-(3-acetytsulfamoylpropyl)6-methylbenzothiazole] - 2 - (3-ethylselenazoline)trimethinecyanine iodide (510, 570, 545). 2-Methyl-3-(4-diacetylhydrazinosulfonylbutyl)benzothiazolium bromide (3.5 g.) and 2.7 g. 2-(2-acetylanilinovinyl)-3-ethylthiazolinium bromide gave similarly [2-[3-(4-diacetylhydrazinosulfonylbutyl)benzothiazole]] [2 - (3 - ethylthiazoline)] trimethinecyanine bromide (504, 570, 540). VIIIa (3.5 g.) and 3.2 g. XI in 50 cc. EtOH heated 15 min. with 2.8 cc. Et3N and cooled gave [2 - [3 - (2 - methylsulfonylaminoethyl)benzothiazole]] [5 - (3-allylrhodanine]dimethinemerocyanine (535, 675, 590). XII (4.53 g.) and 2.52 g. Me2SO4 heated 10 min. at 120-30o, 2.9 g. of the resulting dye salt (XV), 2.1 g. 2,6-dimethyl-3(sulfocarbomethoxymethyl)benzothiazolium bromide Na salt, 20 cc. C5H5N, and 1.4 ccq. Et2N heated 0.5 h. on the water bath and cooled gave anhydro[2-[3-allyl-5- [3-(2-methylsulfonylaminoethyl) - 2 - benzothiazolinylideneethylidene]-4-thiazolinone]] [2-(3-sulfocarbomethoxymethyl) - 6 - methylbenzothiazole]monomethinecyanine hydroxide (595, 700, 640). XV (2.9 g.), 2 g. 2-methyl-3-ethyl-4,5-diphenylthiazolium iodide, 100 cc. EtOH, and 1.4 cc. Et2N heated 15 min. on a water bath yielded [2-[3-allyl-5-[3-(2-methylsulfonylaminoethyl) - 2 - benzothiazolinylideneethylidene] - 4 - thiazolinone]] [2 - (3 - ethyl-4,5-diphenyl)thiazole] monomethinecyanine iodide (XVI) (591, 700, 640). XII (2.9 g.), 1.75 g. 2-(2-methoxypropylidene)-3-ethylbenzothiazolium methosulfate, 25 cc. C5H5N, and 1.4 cc. Et3N refluxed 15 min. gave the [2-(N-ethylbenzothiazole)]mesomethoxytrimethinecyanine methosulfate analog of XVI (618, - 690). XV (2.9 g.), 0.95 g. 3-allylrhodanine, 30 cc. EtOH, and 1.4 cc. Et3N yielded similarly [2-[3-(2-methylsulfonylaminoethyl)benzo thiazole]] [5- [2-(5,3-allyl-2-thio-2,4-dioxothiazolidinylidene)-3-allyl-4-thiazolidinone]] dimethinemerocyanine (568, 700, 640). XV (2.9 g.) with 1.31 g. 3-ethyl-5-(1-phenylethylidene)rhodanine gave similarly [2-[3-(2-methylsulfonylaminoethyl)benzothiazole]] [5- [2-[2-(3-ethyl-2-thio-2,4-di- oxo - 5- thiazolidinylidene) - 2 - phenylethylidene] -3 - allyl - 4-thiazolidinone]]dimethinemerocyanine (630,-, 730). VIIa (4 g.), 1.5 g. p-Me2NC6H4CHO, and 25 cc. Ac2O refluxed 0.5 h., cooled, and diluted with Et2O gave [2-[2-(p-

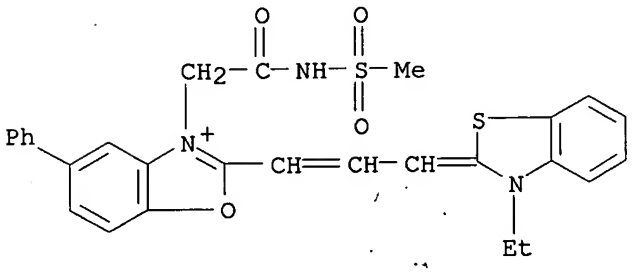
dimethylaminophenyl)vinyl]]-3-(4-acetylsulfamoylbutyl)benzothiazolium bromide (544, 680, 600).

1962:401934 Document Number 57:1934 Original Reference Number 57:328g-i,329a-i,330a-i,331a-f Sensitization of photographic silver halide emulsions. Nys, Jean; Depoorter, Henri (Gevaert Photo-Producten N.V.). DE 1081311 **19600505**, 17 pp. (Unavailable). PRIORITY: GB 19570705.

IT **90438-90-7**, Benzoxazolium, 2-[3-(3-ethyl-2-benzothiazolinylidene)propenyl]-3-[[(methylsulfonyl)carbamoyl]methyl]-5-phenyl-, iodide **107158-10-1**, Benzoxazolium, 3-benzyl-2-[3-[4-methyl-3-[[(methylsulfonyl)carbamoyl]methyl]-4-thiazolin-2-ylidene]propenyl]-, iodide
(preparation of)

RN 90438-90-7 HCAPLUS

CN 2-[3-(3-Ethyl-2-benzothiazolinylidene)propenyl]-3-[[(methylsulfonyl)carbamoyl]methyl]-5-phenylbenzoxazolium iodide (7CI) (CA INDEX NAME)



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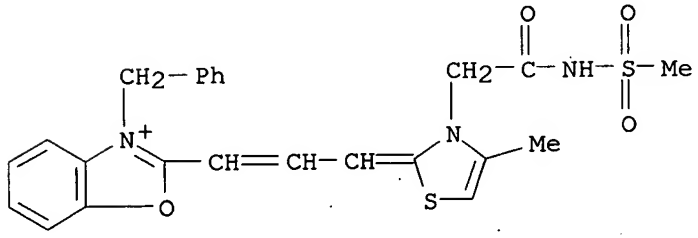
RN 107158-10-1 HCAPLUS

CN 3-Benzyl-2-[3-[4-methyl-3-[[(methylsulfonyl)carbamoyl]methyl]-4-thiazolin-2-ylidene]propenyl]benzoxazolium iodide (7CI) (CA INDEX NAME)



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L9 ANSWER 70 OF 70 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Substitution at a polymethine dye heterocyclic N atom of an electroneg.

Delacroix

hydrophilic group containing at least one SO2 group and consisting of a hydrocarbon radical linked by a CO or SO2 group to NH which in one of the same ways is linked to another hydrocarbon radical, OH, or amino, prevents these dyes from permanently coloring photog. material without destroying their sensitizing power. These new dyes can also have the betaine structure. The following compds. were prepared: Br(CH2)4SO2Cl, b2 98° (new method); Br(CH2)3SO2NH2, m. 60° (from C6H6-petr. ether); Br(CH2)3SO2NHAc, m. 93° (idem); Br(CH2)4SO2Cl, b2.5 128°; Br(CH2)4SO2NH2, m. 68° (idem); Br(CH2)4SO2NHAc, m. 88° (idem); Br(CH2)4SO2NHEt, m. 33-35° (idem); Br(CH2)3SO2NHSO2Me, m. 72° (Me2CO); BrCH2CONHSO2Me, m. 110° (C6H6); BrCH2CONHSO2Et, m. 104° (C6H6); BrCH2CH2CONHSO2Me, m. 130° (C6H6); MeSO2NH(CH2)2Br, m. 49° (Me2CO); Br(CH2)4SO2NHNH2, a white oil; Br(CH2)4SO2NHN(Ac)2, m. 116° (C6H6-C6H14); BrCH2CONHSO2NMe2, m. 84° (C6H6); 2,4-dimethyl-3-(ωsulfamoylpropyl)thiazolium bromide, m. 224° (EtOHEt2O-H2O); 2 - Me -3 - [ω - (acetylsulfamoyl)propyl] - 5-phenylbenzoxazolium bromide, m. 270°; 2 methyl-3-(ω-sulfamoylbutyl)benzothiazolium bromide, m. 243°; 2-methyl- 3-[ω-(acetylsulfamoyl)butyl] benzothiazolium bromide, m. 234-5°; 2-methyl-3-[ω-(methylsulfonylsulfamoyl)propyl]benzot hiazolium bromide, m. 180°; 2-methyl-3-[(methylsulfonylcarbamoyl)methyl] benzothiazolium bromide, m. 188°; 2-methyl-3-[(methylsulfonylcarbamoyl)-methyl]benzoselenazolium bromide, m. 104°; 2-methyl-3[(ethylsulfonylcarbamoyl)methyl] benzothiazolium bromide, m. 170°; 2-methyl-3-[β-(methylsulfonylcarbamoyl)ethy l]benzothiazolium bromide, m. 248°; 2-methyl-3-[β-(methylsulfonylcarbamoyl)ethyl]benzoselenazolium bromide, m. 102°; 2,5,6-trimethyl-3-[(methylsulfonylcarbamoyl)methyl]benzothiazolium bromide, m. 114°; 2-methyl-3-[(methylsulfonylcarbamoyl)methyl] - 5-phenylbenzoxazolium bromide, m. 124°; 2-methyl-3-[β-(methylsulfonamido)ethyl]-benzothiazolium bromide, m. 150°; 2,6-dimethyl-3-[ω(acetylsulfamoyl)propyl]benzothiazolium bromide, m. 218° (EtOH-Et2O); 1 ethyl-2-methyl-3-[w-(acetylsulfamoyl)butyl]-5,6-dichlorobenzimidazolium bromide, m. 225°; 2,4 - di-Me - 3 - [(methylsulfonylcarbamoyl)methyl] thiazolium bromide, m. 228°; 2 methyl-3-[β-(methylsulfonylcarbamoyl)ethyl]-5-chlorobenzothiazolium bromide, m. 115°; 1- [β- (methylsulfonamido)ethyl] - 2-methylquinolinium bromide, m. 226°; 2-methyl-3-[[(dimethylsulfamoyl)carbamoyl] methyl] benzothiazolium bromide, m. 160°; 2-methyl-3-[ω-(acetylsulfamoyl)propyl]benzothiazolium bromide, m. 260°; 2,5-dimethyl-3- [β-(methylsulfonylcarbamoyl)ethyl]benzothiazolium bromide, m. 204°; 2,5,6-trimethyl-3-[ω(acetylsulfamoyl)butyl] benzoxazolium bromide, m. 213-14°; 2 (β-anilinovinyl)-3[ω-(acetylsulfamoyl)butyl]-5,6-dimethylbenzoxazolium bromide, m. 187°; 2,5,6-trimethyl-3-[(methylsulfonylcarbamoyl)methyl] benzoxazolium bromide, m. 174-6° (tetrahydrofuran-Et2O). From these intermediates the following polymethine dyes were prepared (dye, absorption maximum (mμ), Ag halide, sensitizing limit, and sensitization maximum given): 2[[3-(ω-sulfamoylpropyl)-4methyl-2- thiazolinylidene]propenyl] -3-ethylbenzoxazolium iodide, 517, Ag bromoiodide (I), 600, 550; 1 methyl-2-[[3[ω - (acetylsulfamoyl)butyl] - 2 - benzothiazolinylidene] methyl]naphtho[1,2-d]thiazolium bromide, 444, AgCl, 500, 480; 2-[(3-ethyl-2-benzothiazolinylidene)propenyl]- 3- [ω-(acetylsulfamoyl)propyl]-5-phenylbenzoxazolium iodide, 526, Ag chlorobromide (II), 615, 560; 2-[(3-ethyl-2-benzoselenazolinylidene)-2-

methylpropenyl]-3- [ω- (ethylsulfamoyl)butyl]benzoselenazolium iodide, 560, I, 660, 605-10; 2-[[3-[ω(acetylsulfamoyl)butyl]-2-benzothiazolinylidene]-propenyl]-3-[ω-(acetylsulfamoyl)butyl]benzoth iazolium bromide, 560, I, 665, 595; 2-[(3-ethyl-2-thiazolidinylidene)propenyl]-3[ω-(methylsulfonylsulfamoyl)propyl], 504, AgBr, 590, 540; 1-methyl-2- [[3- [(methylsulfonylcarbamoyl)methyl] -2-benzothiazolinylidene] methyl] naphtho [1,2-d] thiazolium bromide, 444, AgCl, 500,480; 2-[[3-[(ethylsulfonylcarbamoyl)-methyl] - 2 - benzothiazolinylidene] - 2 - methylpropenyl] - 3- [(ethylsulfonylcarbamoyl)methyl] benzothiazolium bromide, 546, I, 660, 600; 2-[(3-ethyl-2-benzothiazolinylidene)-2-methylpropenyl] - 3 - [(methylsulfonylcarbamoyl) Me] benzoselenazolium bromide, 550, I 670, 605; 2-[(3-[ωmethylsulfonylcarbamoyl)ethyl] -2-benzoselenazolinylidene]propenyl] - 3 - [ω - (methylsulfonylcarbamoyl)ethyl]benzoselenazolium bromide, 576, I, 670, 605-10; 2-[(3-ethyl-2benzoxazolinylidene)propenyl] - 3-[β-(methylsulfonylcarbamoyl)ethyl]benzothiazolium iodide, 522, AgBr, 600, 560; 2-[(3- ethyl- 2- benzothiazolinylidene)propenyl] -3-[(methylsulfonylcarbamoyl)methyl] - 5,6 - dimethylbenzothiazolium iodide, 568, I, 670, 605-10; 2-[(3-ethyl-2-benzothiazolinylidene)propenyl] - 3 - [(methylsulfonylcarbamoyl)methyl] - 5-phenylbenzoxazolium iodide, 526, AgBr, 620, 560; 2-[[3-[β[(methylsulfonamido)ethyl] - 2 - benzothiazofinylidene]propenyl]-3- [β-(methylsulfonamido)ethyl] benzothiazolium bromide, 563, I, 665, 595; 2-[(3-ethyl-2-thiazolidinylidene)propenyl]-3- [β(methylsulfonamido)ethyl] benzothiazolium bromide, 501, AgCl, 580, 540; 2 [[3-[(methylsulfonylcarbamoyl)methyl] -4- Me - 2 - thiazolinylidene] propenyl] - 3 - benzylbenzoxazolium iodide, 514, I, 600, 555; 2-[(3-propyl-2thiazolidinylidene)propenyl]-3- [(methylsulfonylcarbamoyl)methyl] 5 methylbenzothiazolium bromide, 509, AgBr, 585, 545; 1-ethyl-2-[(3-ethyl-2-benzoxazolinylidene)propenyl] -3- [ω-(acetylsulfamoyl)butyl] - 5,6 - dichlorobenzimidazolium iodide, 490, AgBr, 600, 547; 2-[[3-[β-(methylsulfonylcarbamoyl)ethyl]-5-chloro-2-benzothiazolinylidene] propenyl] -3 - [β - (methylsulfonylcarbamoyl)ethyl] - 5 - chlorobenzothiazolium bromide, 570, I, 675, 610; 2-[(3-ethyl-2-selenazolidinylidene)propenyl] -3 - [ω - (acetylsulfamoyl)propyl]-6-methylbenzothiazolium iodide, 510, AgCl, 570, 545; 2-thio-3-allyl-5-[[3- [β-(methylsulfonamido)ethyl] -2-benzo-thiazolinylidene]ethylidenel-2,4-thiazolidinedione, 535, I, 675, 590; 2-[[3- [ω- (acetylsulfamoyl)propyl] -5-phenyl-2-benzoxazolinylidenel-2-propylpropenyl]-3- [ω-(acetylsulfamoyl)propyl] - 5 - phenylbenzoxazolium iodide, 506, AgBr, 580, 555; 2-[(3-ethyl-2-thiazolidinylidene)propenyl]-3-[ω - [(β - diacetylhydrazino)sulfonyl]butyl]benzothiazolium bromide, 504, AgCl, 570, 540; 2-[[3-[(methylsulfonylcarbamoyl)methyl] - 5,6 - dimethyl- 2 - benzoxazolinylidene[propenyl] - 3 - [ω- (acetylsulfamoyl)butyl] - 5,6 - dimethylbenzoxazolium bromide, 501, AgBr, 555, 520; 2-[[3-(sulfometh-oxycarbonylmethyl) - 2 - benzothiazolinylidene] propenyl] - 3[ω- (acetylsulfamoyl)butyl] - 5,6 - dimethylbenzoxazolium betaine, 526, I, 600, 560; 2-[[3-[ω-(acetylsulfamoyl)butyl]-2 - benzothiazolinylidene] - 1,3 - pentadienyl] - 3 - [ω - (acetyl-sulfamoyl)butyl]benzothiazolium bromide, 654, AgCl, 760, 700 (in the presence of 10 g. of 1 hydroxy-2-stearoylaminonaphthalenesulfonic acid (III)); 4-[3-[ω-(acetylsulfamoyl)butyl] - 2 - benzothiazolinylidene] -2-cyano-2 - butyronitrile, 450, II, 540, 485; 1-[β-(methylsulfonamido)ethyl]-2-[(3- Me - 2 - benzothiazolinylidene)methyl] quinolinium bromide, 486, I, 560, 540;

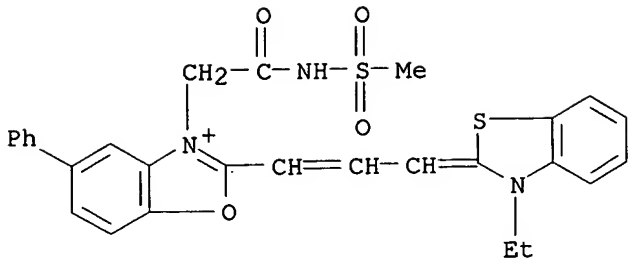
2-[[3-[[(dimethylsulfamoyl)carbamoyl]methyl]-2-benzothiazolinylidene] propenyl] -3- ethylbenzoxazolium iodide, 526, I, 600, 560; 1-phenyl-3-methyl-4 - [[3- [ω - (acetylsulfamoyl)propyl]-6- Me -2 - benzothiazolinylidene]-1-methylethylidene]-5-pyrazolone, 492, AgBr, 620, 540; 2-thio-3-allyl-5-[[3-[β-(methylsulfonylcarbamoyl)ethyl] - 5 - Me - 2 - benzothiazolinylidene] ethylidene]-2,4-thiazolidinedione, 530, II, 640, 605; 2-[[3-[[(di- methylsulfamoyl)carbamoyl]methyl] - 2 - benzothiazolinylidene] - 2 - methylpropenyl] - 3 - [[(dimethylsulfamoyl)carbamoyl]methyl]benzothiazolium iodide, 549, I, 650, 595; 2-thio-3-allyl-5- [[3- [ω-(acetylsulfamoyl)propyl] -2-benzothiazolinylidene] ethylidene]-2,4-thiazolidinedione. 524, AgCl, 640, 605; 2-thio-3-allyl-5-[[3-[β-(methylsulfonamido)ethyl] -2-benzothiazolinylidene] ethylidene] -2,4 - thiazolidinedione, 522, II, 650, 600; 2-[[3-(sulfomethoxycarbonylmethyl)-6-methyl-2-benzothiazolinylidene] methyl]-3-allyl-4 oxo- 5 - [[3 - [β - (methylsulfonamido)ethyl) - 2 - benzothiazolinylidene]ethylidene]thiazolinium betaine, 595, I, 700, 640; 2-[(3 - Et - 4,5 - diphenyl-2 - thiazolinylidene)methyl] - 3-allyl-4-oxo-5- [[3- [β-(methylsulfonamido)ethyl] -2-benzothiazolinylidene]ethylidene]thiazolinium iodide, 591, I, 700, 640; 2-[(3-ethyl-2-benzothiazolinylidene)-2-methoxypropenyl]-3-allyl-4-oxo-5-[[3-[β- (methylsulfonamido)ethyl]-2 - benzothiazolinylidene]ethylidene]thiazolinium methosulfate, 618, AgCl, -, 690 (in the presence of 10 g. III); 2 - [[3 - [β - (methylsulfonamido)ethyl] - 2 - benzothiazolinylidene] methyl]-3-ethyl-4-[(3-Et - 2 - benzothiazolinylidene)ethylidene]-5-oxothiazolinium bromide, 611, I, 710, 660; 2-(2-thio-3 allyl-4- oxo- 5-thiazolidinylidene) - 3 - allyl - 5- [[3[β - (methylsulfonamido)ethyl] - 2 - benzothiazolinylidene]-ethylidene]-4-thiazolidinone, 568, I, 700, 640; 2-[(2-thio-3-Et - 4 - oxo - 5 - thiazolidinylidene) - 2- phenylethylidene] - 3-allyl-5-[[3-[β-(methylsulfonamido)ethyl]-2-benzothiazolinylidene]ethylidene]-4-thiazolidinone, 630, I, -, 730; and 2(p-dimethylaminostyryl)-3-[ω-(acetylsulfamoyl)butyl]benzothiazolium bromide, 544, AgCl, 680, 600.

1962:71146 Document Number 56:71146 Original Reference Number 56:13705g-i,13706a-i,13707a-g Polymethine dyes. Nys, Jean; Depoorter, Henri (Gevaert Photo-Producten N.V.). BE 569130 **19581102** (Unavailable). PRIORITY: GB 19570705.

IT **90438-90-7**, Benzoxazolium, 2-[3-(3-ethyl-2-benzothiazolinylidene)propenyl]-3-[[(methylsulfonyl)carbamoyl]methyl]-5-phenyl-, iodide **96435-23-3**, Benzoxazolium, 2,5,6-trimethyl-3-[[(methylsulfonyl)carbamoyl]methyl]-, bromide **100930-77-6**, Benzoxazolium, 2-methyl-3-[[(methylsulfonyl)carbamoyl]methyl]-5-phenyl-, bromide **106599-46-6**, Benzoxazolium, 3-[4-(acetylsulfamoyl)butyl]-2-[3-[5,6-dimethyl-3-[[(methylsulfonyl)carbamoyl]methyl]-2-benzoxazolinylidene]propenyl]-5,6-dimethyl-, bromide **107158-10-1**, Benzoxazolium, 3-benzyl-2-[3-[4-methyl-3-[[(methylsulfonyl)carbamoyl]methyl]-4-thiazolin-2-ylidene]propenyl]-, iodide
(preparation of)

RN 90438-90-7 HCAPLUS

CN 2-[3-(3-Ethyl-2-benzothiazolinylidene)propenyl]-3-[[(methylsulfonyl)carbamoyl]methyl]-5-phenylbenzoxazolium iodide (7CI) (CA INDEX NAME)



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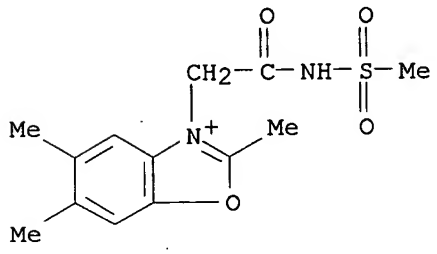

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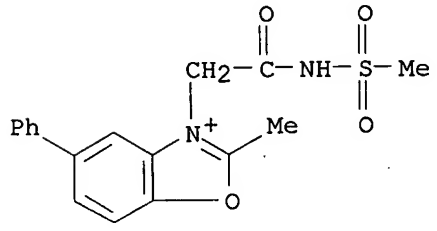

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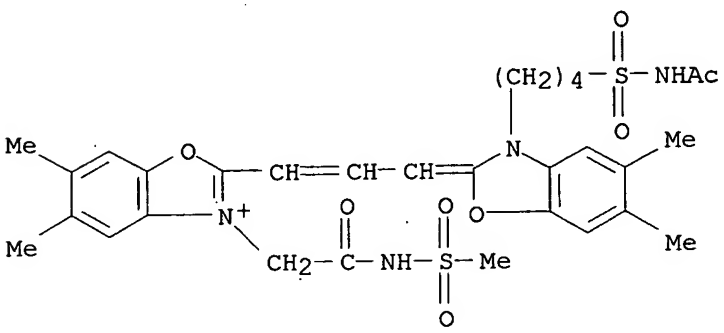
RN 106599-46-6 HCAPLUS

Delacroix

CN 3-[4-(Acetylsulfamoyl)butyl]-2-[3-[5,6-dimethyl-3-[[(methylsulfonyl)carbamoyl]methyl]-2-benzoxazolinylidene]propenyl]-5,6-dimethylbenzoxazolium bromide (7CI) (CA INDEX NAME)



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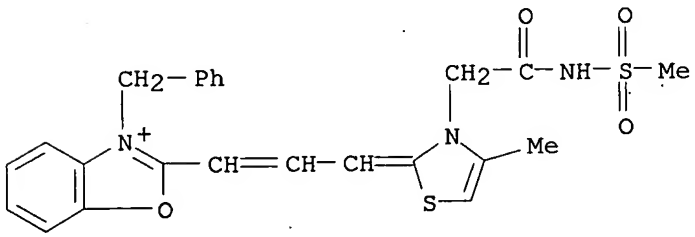
RN 107158-10-1 HCAPLUS

CN 3-Benzyl-2-[3-[4-methyl-3-[[(methylsulfonyl)carbamoyl]methyl]-4-thiazolin-2-ylidene]propenyl]benzoxazolium iodide (7CI) (CA INDEX NAME)



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